TODAY'S WEATHER FORECAST — PARIS: Thursday, cloudy. Temp. 8-11 (46-52). Friday, cloudy, rain. LONDON: Thursday, variable. Temp. 6-9 (43-48). Friday, variable, rain. CHANNEL: Rough. ROME: Thursday, cloudy. Temp. 14-18 (57-64). NEW YORK: Thursday, sunny. Temp. -4—-2 (25-29).

ADDITIONAL WEATHER—COMICS PAGE.

INTERNATIONAL
# Herald Tribune

Published with The New York Times and The Washington Post

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| Austria | 12 S. | Kenya | Sh. 5.00 |
| Belgium | 20 B.Fr. | Lebanon | L. 1.50 |
| Denmark | 3.50 D.Kr. | Luxembourg | 20 L.Fr. |
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No. 29,191 • PARIS, THURSDAY, DECEMBER 9, 1976 Established 1887

## U.S. Helped Ship Overseas Pesticides Banned at Home

By Peter Milius and Dan Morgan

WASHINGTON, Dec. 8 (WP).—The U.S. government has helped to pay for the shipment overseas of hundreds of tons of pesticides so poisonous that they are not permitted to be used in the United States.

Included in these shipments of the U.S. foreign program were 64 metric toss of leptophos, which has been linked to nerve disorders and paralysis among workers at the Texas plant where it was manufactured.

Officials of the Agency for International Development (AID) said the leptophos pesticide was shipped to Indonesia and South Vietnam between 1972 and 1975 for use on cotton crops.

At the same time, the officials said that AID had subsidized the export of about 900 metric tons of DDT, primarily for use on crops, between 1972 and 1974. The use of DDT has been prohibited in the United States, except in special cases, since the beginning of 1973.

AID agreed last December to suspend its procurement of these and other controversial chemicals after four national environmental organizations filed suit to stop the practice.

Until then, leptophos, DDT, aldrin, heptachlor and chlordane were all included on the list of commodities for which U.S. government financing was available to foreign buyers. The use of those chemicals either has never been authorized or has been sharply circumscribed by the Environmental Protection Agency, which sets U.S. government standards.

An AID spokesman announced yesterday that the agency "is not financing the export of leptophos [at the present time] and doesn't expect to do so." He said the decision was based on a recent report of a five-member EPA advisory panel, which

(Continued on Page 2, Col. 5)

*Urges Closing U.S. Bases*

## Spanish Socialist Convention Calls for Sweeping Changes

MADRID, Dec. 8 (UPI).—Spain's mainstream Socialist party wound up a four-day national convention today, calling for a sweeping program of democratic change and the closing of U.S. military bases in Spain.

The Socialist Workers Party of Spain (PSOE), which is expected to play an important role in the future democratic Spain, also proposed profound changes in the economy. It drew up a charter of women's rights that includes the legalization of divorce, free abortion and free contraceptives—all of them forbidden under the Franco regime.

The congres was the PSOE's first on Spanish soil since before the Civil War. The party shared power in the Popular Front government at the time Franco's nationalists rose against the government and started the 1936-39 war.

The congress has been hailed by the Spanish press as historic and as one of the most significant signs of Spain's move from dictatorship to Western-style democracy. The government of King Juan Carlos authorized it and provided armed police to guard the 3,000 delegates against possible attacks from extreme rightists.

In one of a packet of resolutions approved by the congress last night and made public today, the Socialists called for the scrapping of the military bases treaty with the United States. They said the treaty "mortages the national territory and Spain's foreign policy and was concluded without the free and explicit approval of the Spanish people."

**NATO, Warsaw Pact Assailed**

The foreign policy resolution also denounced "the imperialist interventionism of the United States in Latin American countries and declared the party's solidarity with the struggles of the Latin American peoples for their full political and economic independence against the local oligarchies serving foreign economic interests."

The Socialists condemned both NATO and the Warsaw Pact as "politico-military blocs dividing the working class worldwide and delaying its liberation from all forms of economic, social and political exploitation." They said they would oppose membership in the European Economic Community as long as political freedoms have not been fully established in Spain.

The party redefined itself as Marxist, but stressed its adherence to pluralist Western-style democracy. Several speakers made clear that even though the PSOE is at present allied with the Communists, it will pursue its own line.

"While fully respecting liberty, we want to transform Spanish society," the party's leader, Felipe Gonzalez, a 34-year-old Seville labor lawyer, said in his closing address.

The congress was attended by delegations from 30 nations, among them former West German Chancellor Willy Brandt, the chairman of the Socialist International, and other West European Socialist leaders.

**Autonomy Is Urged**

The Socialists demanded that Spain's thorny minority problems be solved by giving the Basques, Catalonians and others autonomy within a federal system. In careful terms, they left open the possibility that the nation could again become a republic, as it was before Franco.

Changes in the economy included a proposal for 650 billion pesetas ($10 billion) in new taxes a year to finance expanded welfare plans and the creation of jobs for Spain's nearly 1 million unemployed.

The Socialists criticized the government's program of political reform for not going far enough and for having been drawn up without the participation of democratic opposition groups. For these reasons, the Socialists said, they have been urging their followers to abstain in the Dec. 15 referendum on the government's reform program.

But the Socialists reaffirmed that a program of full political freedoms must be negotiated with the government. They said that if conditions were right, they would participate in Spain's first free elections in 41 years, scheduled for the first half of next year.

The congress re-elected Mr. Gonzalez as secretary-general and created the honorary post of president for Ramon Rubial, 68, a Basque Socialist militant jailed by the Franco regime for a total of 24 years.

## Commons Passes Nationalization Bill by 3 Votes

LONDON, Dec. 8 (Reuters).—A bitterly contested bill to nationalize Britain's ship and aircraft building industries scraped over a major hurdle early today when the House of Commons passed it by 280 votes to 277.

But the Labor government, which is trying to steer Socialist measures through Parliament with only a one-vote majority, was immediately faced with a new opposition tactic.

The Conservatives said they would formally ask the speaker (chairman) to rule that the government could not invoke powers to curtail interference by the House of Lords, which the opposition dominates.

The Lords so altered the bill in the previous session of Parliament that it failed and had to be reintroduced.

The measure, which is being doggedly opposed by the Conservatives, could still take up to a year to get through the remaining parliamentary processes.

## Smith Back In Geneva; Sees Talks In Danger

GENEVA, Dec. 8 (UPI).—Rhodesia's Prime Minister Ian Smith warned today that the Rhodesia conference here will be "out the window" unless it returns to a focus on the original U.S.-British proposals for a peaceful transition to black-majority rule.

Mr. Smith, who returned to the conference today after a five-week absence, issued his warning after a one-hour, 40-minute private session with Ivor Richard, the British diplomat who is chairman of the conference.

Mr. Smith declared: "If you're going to break an agreement, you must face the consequences. It is a grave thing. Then the whole thing is out the window and we have to start again."

Mr. Smith insists that the British-U.S. proposals represented a non-negotiable package and were accepted as such by Rhodesia's white people.

"The meeting was inconclusive," Mr. Smith told newsmen after his session with Mr. Richard today.

"I put forward some ideas and we agreed to sleep on them and meet again tomorrow," the Prime Minister added.

**Kissinger Plan**

He declined to discuss the ideas he advanced but reiterated that he sticks firmly to the proposals made in September, with British backing, by outgoing U.S. Secretary of State Henry Kissinger.

"I think the British are sitting on the fence, trying to find out which way the thing is going to go and then they're going to jump accordingly," Mr. Smith said earlier today, on landing at the airport here.

Mr. Smith left the Geneva conference one week after its formal opening on Oct. 28. He said then that he was wasting his time here because Mr. Richard had failed to put the U.S.-British proposals before the five delegations—four black and one white.

The proposals, which London said constituted only a basis for negotiation and not a hard and fast peace package as Mr. Smith maintains, provide for an interim government with a black prime minister and majority but with whites retaining control of the army and police.

All four nationalist leaders here insist on a British presence in Rhodesia during the transitional period. British supervision of the transitional process would be in the hands of a commissioner or governor.

Mr. Smith rejected this idea when he flew in from Salisbury on a flight that first took him to Johannesburg and then to Zurich.

"A British presence would be more a hindrance than a help," he said.

Conference officials have all but ruled out any agreement by fiDec. 20—Britain's target date for a pact—and have said that there will undoubtedly have to be a second round possibly held elsewhere.

**18 Deaths and an Arrest**

SALISBURY, Rhodesia, Dec. 8 (UPI).—Rhodesia reported today that 18 blacks have been killed in the guerrilla war in recent days and announced the arrest of a Swiss priest on charges of "assisting terrorists."

A government spokesman said the Rev. Paul Egli, a Catholic missionary, "will be appearing in court shortly, facing five charges of assisting terrorists and failing to report [the presence of] terrorists." Another Catholic cleric, Bishop Donal Lamont of Umtali, is appealing a 10-year jail term imposed on him for failing to report the presence of guerrillas.

United Press International.

EEC Commissioner Sir Christopher Soames with Henry Kissinger in Brussels yesterday.

### Ministers Give Tentative Go-Ahead

## NATO Clears Early Warning Force

By James Goldsborough

BRUSSELS, Dec. 8 (IHT).—NATO defense ministers today gave a tentative political go-ahead to plans for the new airborne early warning force, a $2.4-billion project that is the biggest ever undertaken by the alliance.

Meeting here on the eve of the semiannual meeting of alliance foreign ministers—which is expected to be the last major foreign appearance by Secretary of State Henry Kissinger—the defense ministers seconded a plan that has had NATO military backing for several years.

The defense ministers' decision was regarded as less than final because of lingering reluctance in some national parliaments to bear the cost. But Joseph Luns, the NATO secretary-general, said tonight that only a "slight possibility" of failure remained.

U.S. Defense Secretary Donald Rumsfeld said he was encouraged by the action taken here today. "There was an endorsement of the military judgment that this early warning system was a necessity for the alliance," he said.

The plan calls for the establishment of a joint fleet of 27 Boeing E-3A aircraft to protect against possibility of a surprise attack. The system, called AWACS, for Airborne Warning and Control System, is designed particularly to protect against low-flying enemy aircraft that would not be detected by ground radar.

AWACS has been a hot issue at meetings of the North Atlantic Treaty Organization in recent years because of its cost—described by Mr. Luns tonight as "enormous." But it is necessary because present alliance early-warning systems are out of date, Mr. Luns said.

Experts have been working on ways for the NATO allies to produce enough parts for the new plane on their own territory to offset up to 18 per cent of the total cost to them. The defense ministers' communiqué tonight said that financial experts would meet early next month to examine the financial problems and pave the way for a final meeting of defense ministers. The political accords would then need endorsement by national legislatures.

The approval given to the project by the allies—the United States is already building 12 of the planes for its own use—reflected the growing concern in military circles over the continued Soviet defense effort.

At a news conference tonight, Mr. Rumsfeld commented on what he called the "increase in Soviet military spending in real terms," and said that in the last

(Continued on Page 2, Col. 3)

Associated Press.

A Boeing AWAC radar plane of the type being offered to NATO by the United States.

*But Further Talks Will Seek to Avoid Double Taxation*

## French Assembly Ends U.S. Tax Exemption

PARIS, Dec. 8 (IHT).—The National Assembly today passed a tax bill that includes a provision repealing Article 164 of the tax code, which has protected Americans residing in France from double taxation since before World War II.

Repeal of Article 164, however, will date from Jan. 1, 1978, giving American residents in France a year's time to adjust to the new French tax system. The repeal was part of a wider tax bill passed by the Assembly that provides tax relief for Frenchmen residing abroad.

The Assembly action occurred three months after the French Senate voted to preserve the article in the new tax bill. The two versions of the tax bill will now go to a joint commission to decide on a compromise version. The Assembly has the final say in the matter.

Between the Senate's consideration of it in August and Assembly adoption today, U.S. and French negotiators met to adopt provisions aimed at protecting Americans in France from most forms of double taxation. U.S. and French officials now say that most forms of income taxed in the United States will be exempt from taxation here.

**Large Gray Area**

The U.S. community in France, however, disputes this and maintains that there are several forms of income that will still be subject to double taxation. A large gray area exists, for example, on taxation of Americans who reside only part-time in France.

U.S. and French negotiators will begin meeting again early next year after the new U.S. administration takes office. U.S. officials say that one of the goals of the new negotiation will be to close any loopholes that still remain on double taxation.

"The goal of both governments is to avoid double taxation," a U.S. official commented. "We would expect that the U.S. community in France would stay in contact with us during the negotiations to make its views known."

The new negotiations will be carried out by officials from the French Finance Ministry and from the Tax Policy Office of the U.S. Treasury Department.

**More Than 60 Treaties**

A French Finance Ministry official pointed out that France has already drawn up tax treaties with more than 60 countries to avoid double taxation of foreign residents in France.

He added that France and the United States have begun discussions on eliminating all possibilities of double taxation of U.S. residents in France. The talks will resume in January or February of next year, he said.

If necessary, he added, the U.S.-French tax treaty will be revised to make sure that there is no double taxation. The problems are not complex and agreement should be reached and presented for legislative action shortly, he said.

In any case, the official stressed, there will be no effect of the repeal of Article 164 on U.S. residents until September, 1979, when income for 1978 will be taxed. And at that time, the U.S. taxpayer will be able to appeal the French tax system's decision if he feels that he has been taxed twice on the same revenue.

*Student, 19, Fled in August*

## Leader of Soweto Uprising Predicts Race War

By Kathleen Teltsch

NEW YORK, Dec. 8 (NYT).—The 19-year-old youth who helped direct the student uprising in June in the black South African township of Soweto expects a racial conflict to erupt within five years and intends to be in the forefront.

"I'll be in South Africa with a gun in my hand and I think I'm going to enjoy shooting down white South Africans," Tsietsi Mashinini remarked calmly.

His recollections of the June events remain vivid but the youth leader related them dispassionately as if describing some remote incident in the course of a news conference yesterday sponsored by the American Committee on Africa at its offices here.

Until he fled the country in August, he was president of the Student Representative Council, which has emerged as the single most influential group in the completely segregated township of 1.5 million blacks.

Contrary to the claims of the white-minority government headed by Prime Minister John Vorster, there were no outside agitators and no "Communists" involved, the youth leader insisted. It was a revolt sparked by student protests against the imposed use in the high schools of Afrikaans—seen by the students as the language of the racist and oppressor and also a means of ensuring they would remain in the country as an available labor force.

The students carrying their placards converged on a Soweto high school and found the police waiting. He said they fired into the throng and an 11-year-old boy at his side fell to the ground, a bullet wound in his head—the first casualty. He estimates more than 350 others died later in Soweto and as the violence spread, the total likely reached 1,000. Authorities put the figure at 168.

Weeks in hiding followed while the government offered $575 for information leading to his arrest. He says he chose exile because he was convinced that once in the hands of the police, he would be tortured as others had been who were released from detention crippled or blinded.

He escaped to Botswana in August and said he narrowly evaded attempts to kidnap him by South African police. He made his way to London by means he prefers not to discuss and has been attending Kingsbridge Princeton College on a scholarship.

The young leader said he sees

(Continued on Page 2, Col. 7)

## PLO Considering Plan to Establish Regime-in-Exile

By Henry Tanner

BEIRUT, Dec. 8 (NYT).—The leadership of the Palestine Liberation Organization is contemplating the formation of a government-in-exile before the start of negotiations in Geneva for a Middle East settlement, Palestinian sources said today.

The immediate purpose of such a step would be to make it easier for the Soviet Union and the United States to invite the Palestinians to participate in the conference, the sources said. The two superpowers are co-chairmen of the conference and must issue the invitations. The Palestinian leaders are reportedly moving toward acceptance of an Egyptian proposal for their inclusion in a single Arab delegation, whereas in the past they have insisted on forming a separate Palestinian delegation. They would still require an invitation from the superpowers, however.

Yassir Arafat, the head of the PLO, raised the issue of a government-in-exile last night at a meeting here with other leaders of the Palestinian movement, the sources said.

They added that President Tito of Yugoslavia and President Nicolae Ceausescu of Romania had both urged the formation of such a government in talks with Mr. Arafat during his visits to Belgrade and Bucharest earlier this week.

President Tito is reported to have told the guerrilla leader that 90 or more governments would give diplomatic recognition to a Palestinian government. Mr. Arafat returned from Eastern Europe yesterday. He is due to visit Moscow soon, after going to Cairo for talks with President Anwar Sadat.

The Soviet Union, too, is understood to have urged the Palestinians to form a provisional government-in-exile.

The idea was first proposed by Mr. Sadat in the spring of 1972. Palestinian leaders have been saying that if a government were formed, its seat would be in Cairo, which is also the headquarters of the Arab League.

Many Palestinian leaders have in the past opposed the idea of forming a government before obtaining a territory of their own in which to place it.

Hardliners among them have argued that a provisional government, by soliciting diplomatic recognition, would be accepting the rules of the international community before being sure that this community was ready to satisfy the national aspirations of the Palestinians.

**Military Acts Barred**

In blunter terms, it was argued that if negotiations in Geneva or elsewhere failed and Israel did not withdraw from territories occupied in 1967, the Palestinians should be free to resume armed operations, including terrorist acts, which a government could not do.

Mr. Arafat was "testing the waters" when he raised the idea at last night's meeting, the Palestinian sources said. There will be thorough internal debate before a decision is reached, they said.

The meeting of the PLO leadership was the first in more than six months attended by representatives of as-Saiqa, the Syrian-controlled guerrilla organization that was expelled from the PLO by Mr. Arafat and his colleagues during the fighting between Palestinian commandos and the Syrian Army in Lebanon's recent civil war.

It was decided last night that the PLO's 42-member Central Council will meet in Damascus Sunday or Monday to discuss relations between as-Saiqa and the other guerrilla groups and to make preparations for a meeting of the full 174-member Palestine National Council (parliament), a session likely to be held in Cairo in January.

## Israelis Bar Arab Bloc at Mideast Talks

### While Still Backing Geneva Conference

UNITED NATIONS, N.Y., Dec. 8 (AP).—Israel declared today that it opposes the idea of a single Arab delegation to a reconvened Geneva conference on the Middle East.

"With or without the participation of the Palestinians, we are against negotiating with a single Arab delegation and this is our firm policy," Tuvia Saar, a spokesman for the Israeli delegation, declared.

The idea of merging the Arabs at the Geneva conference has been suggested as a way of settling one of the chief issues blocking the resumption of negotiations—the question of the participation by the Palestine Liberation Organization.

**Israel, Arabs Agree**

Israel and the Arabs agree that the Geneva conference, which met for two days in December, 1973, and has not reconvened since, should be called soon, but they are still far apart on the PLO issue.

The PLO demands that it take part in the conference as an independent entity along with Egypt, Syria, Jordan and Israel. Israel, on the other hand, refuses to sit with the PLO.

The proposal for a single Arab negotiating team has been gaining momentum in Arab capitals in recent days.

Dispatches from Beirut have indicated that PLO leaders are moving toward acceptance of the proposal.

Some diplomats thought that Israel was also receptive to the idea when Israel's UN Ambassador Chaim Herzog told newsmen Monday that his government would "not check the credentials" of the members of the Arab delegations to Geneva.

But Mr. Saar said today that Mr. Herzog was "simply making a point" that the Palestinians may be included in the Jordanian delegation.

**One-to-one Basis**

"We may sit together with the Arabs at the opening ceremony, but the bargaining has to be done on one-to-one basis," he said.

The question of the Golan Heights, for instance, should be negotiated between Israel and Syria and not with anybody else, Mr. Saar added.

Meanwhile, it was reliably reported that Israel was ready to withdraw a General Assembly resolution urging Egypt, Israel, Jordan and Syria to meet in Geneva "without delay."

The document, the first resolution introduced to the Assembly by Israel in its 27 years of membership, faced certain defeat due to the overwhelming majority the Arabs command.

Earlier, the General Assembly formally approved Kurt Waldheim by acclamation as secretary-general for another five-year term.

## Sarkis Names a Professor To Be Premier of Lebanon

BEIRUT, Dec. 8 (Reuters).—Lebanese President Elias Sarkis has asked economics professor Selim al-Hoss, 46, a Sunni Moslem, to form a new government, the presidential palace announced tonight.

A palace statement, broadcast on television, said that the choice of Mr. Hoss ended two days of consultations by the President on the formation of a government to help rebuild the country.

Mr. Hoss, who headed the Industrial Development Bank when the civil war broke out more than 19 months ago, is expected to ask eight other technocrats to join his Cabinet. Both leftist and rightist politicians have announced their approval of a non-political government for a transition period.

Informed sources said that they expected the technocratic Cabinet to administer the country pending a political dialogue between various factions.

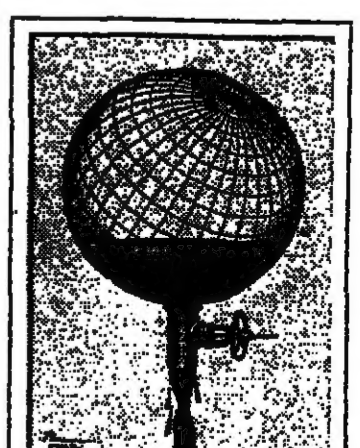
As Premier, Mr. Hoss would succeed Rashid Karami, who held the office at the outbreak of war in April of last year.

Fighting on Lebanon's major battlefronts was halted last month by Syrian troops acting under an Arab League mandate.

But tonight's presidential announcement followed reports that leftist and rightist Lebanese gunmen had clashed today near the Israeli border.

The Syrian forces have remained to the north of the Litani River, about 20 kilometers north of and roughly parallel to the Israeli border, which is believed to be the red line south of which

(Continued on Page 2, Col. 8)



**Focus On Energy**

A 12-page section on various aspects of the energy problem appears today. It begins on Page 11.

### Headed by Britain's Roy Jenkins

# *New European Commission May Revive the EEC's Fortunes*

PARIS (IHT).—The 13 new members of the European Economic Community's Executive Commission were designated in The Hague last week and, from the looks of the lineup, chances are that some of the members are not going to accept the commission's reputation as a political graveyard.

The new commission, headed by Britain's Roy Jenkins, takes office Jan. 1 for four years. With the commission currently in a state of full eclipse, this Jenkins commission may be the most important in the community's history.

Mr. Jenkins, the former British home secretary and chancellor of the Exchequer, has spent the last few months on a talent search throughout the EEC capitals. Some countries, usually the most federalist-minded, such as the Netherlands, Italy and Belgium, nominated powerful and well-known figures to his commission. In some cases, in France, for example, Mr. Jenkins got the men he wanted. In others, West Germany, he did not.

The next few years will be crucial for the commission. Never able to fill the executive role intended for it—because of nationalist opposition in France and West Germany—the commission has suffered even more since the community's chiefs of government established the European Council two years ago to act as an executive body.

But with the council itself now proving ineffective, a strong and independent commission could turn the community's fortunes around. Mr. Jenkins set out to pack it with powerful political figures who wanted something more than a comfortable ticket to retirement.

Following is a list of the men who will serve with Mr. Jenkins on the new commission. The four largest EEC nations have two commissioners each: the five smallest, one each.

Italy: Lorenzo Natali, Christian Democrat, former minister of agriculture. Antonio Giolitti, Socialist, member of Parliament and economist.

France: François-Xavier Ortoli and Claude Cheysson. Both French commissioners are holdovers from the previous commission and both are highly regarded. Mr. Cheysson is a prominent Socialist and was a bête noire of former Prime Minister Jacques Chirac. However, it is Mr. Chirac who is out of office and Mr. Cheysson who stays.

West Germany: Willy Haferkamp and Guido Brunner are also holdovers. Mr. Jenkins apparently erred in asking Chancellor Helmut Schmidt to replace Mr. Haferkamp, who has held the commission's economics and finance portfolios, with someone with more political clout. Mr. Schmidt never has been a commission fan and the last thing he wants to give it is political clout.

Britain: Mr. Jenkins himself, Laborite, and Christopher Tugendhat, Conservative MP from Westminster. The Tories originally designated John Davies but Mr. Jenkins argued for somebody on the rise. Mr. Tugendhat, 39, is a former columnist for the Financial Times, has published two books and is a Tory with a future.

Netherlands: The Dutch are sending Henk Vredeling, an outspoken and unorthodox Socialist who is their defense minister.

Belgium: The Belgians have designated Viscount Etienne Davignon, their best-kown diplomat, who is head of the International Energy Agency and gave his name to the Davignon Committee, the EEC's first political coordinating body.

Rounding out the commission are Finn Olaf Gundelach of Denmark, Richard Burke of Ireland, and Raymond Vouel of Luxembourg.

One striking point about the new commission is the high quality of the Socialists who are on it. Messrs. Jenkins, Giolitti, Cheysson and Vredeling make up a solid Socialist nucleus that could give the commission a tendency that it has not had in the past.

Members of the commission will visit Mr. Jenkins in a week or two at his home in Berkshire. The most pressing problem is distribution of portfolios, for at least four of the commissioners, Messrs. Vredeling, Giolitti, Davignon and Ortoli, have indicated that their acceptance depended on their new jobs.

There is stiff competition for the key posts, which include foreign relations, held by Sir Christopher Soames in the previous commission; economics and finance, held by Mr. Haferkamp; aid and development, held by Mr. Cheysson, and agriculture, held by Pierre Lardinois, a Dutchman. Regional development, industry and energy are other key portfolios.

The next four years will determine not only the future of the commission but also very probably the future of the European Council and the Council of Ministers.

The council's future, following its unsuccessful recent meetings, is in doubt. The European Parliament, too, will undergo significant changes with the direct election of its members, which will start in 1978. The next four years would be an opportune time for the commission to reassert itself as an effective EEC executive body.

A Rome fireman p... a wreath on the ... of the Virgin Mary ... the Piazza di Spag... the feast day of th... maculate Conceptio...

## NATO's Defense Ministers Clear Early Warning Force

(Continued from Page 1)

two years the alliance had taken steps to meet it.

Calling cooperation among the NATO allies "higher than ever before," he said: "I am leaving my post optimistically. This is a dangerous and untidy world. I am reassured that the alliance is doing its job.

Experts still must work out many problems in the AWACS agreement, but if they succeed, they will put in place a system that, in Mr. Luns's words tonight, "will sight anything that flies, from storks upwards."

The planes in all likelihood will be jointly owned, rather than nationally, with four NATO countries—the United States, West Germany, Britain and Canada—paying most of the costs. French approval is still tentative. The smaller NATO nations would pay largely symbolic costs for the system.

Although final figures remain to be negotiated, it is estimated that the United States would pay roughly one-third of the $2.4 billion.

The plane itself is a modified 707 with a huge radar tower on top. It is essentially designed to detect low-flying aircraft such as the Soviet Foxbat, the MiG-25, which recently slipped into Japan piloted by a defecting Russian officer.

At his news conference, Mr. Rumsfeld said that in his remarks on Spain yesterday he had not called for presence of Spanish observers at NATO meetings but rather their inclusion in meetings of NATO parliamentarians. There was some concern today that Washington was trying to force the Spanish issue—despite the objections of some of the more liberal NATO nations—even before the upcoming Spanish elections

But despite Mr. Rumsfeld's clarification, it remains clear that the outgoing administration is as committed to Spanish entry into NATO as ever.

## Giscard Will Call Summit of West's Industrial Powers

PARIS, Dec. 8 (Reuters).—President Valéry Giscard d'Estaing announced here today his intention to call a third summit conference of the United States and other leading industrial nations to discuss the world economic crisis.

A special European summit meeting will discuss the problem before the proposed conference, expected to be held within six months, he said.

At the weekly Cabinet meeting, Mr. Giscard d'Estaing said he intended to ask President-elect Jimmy Carter, the new Japanese government and other leading Western industrialized countries to meet before next summer.

France was host to the first economic summit last November at Rambouillet, near Paris, with the United States holding the second one in Puerto Rico last June.

French officials said they did not yet know where the next one would be held. They said that West Germany, Britain and Italy have already indicated willingness to participate.

Mr. Giscard d'Estaing first brought up his idea for another economic summit at a meeting of the European Economic Community heads of state and government at The Hague early last week.

## Basque Seeking Swedish Haven

STOCKHOLM, Dec. 8 (Reuters).—A leading member of the Basque nationalist movement ETA has applied for political asylum in Sweden, his lawyer said today.

The lawyer said that Jose Ignacio Abaitua Gomeza entered Sweden a month ago. Mr. Abaitua Gomeza, 28, had lived in France since 1968, but his lawyer, Bengt Soederstroem, said he left earlier this year because he feared possible extradition to Spain now that relations have improved between the two countries.

The police said today that Mr. Abaitua Gomeza would need to supply more details of why he sought asylum before a decision could be made.

### Pearl Harbor Day

PEARL HARBOR, Hawaii, Dec. 8 (AP).—The 35th anniversary of the Japanese attack on Pearl Harbor was observed yesterday.

Associated Press.

An unidentified woman in evening gown and furs walks past riot police on opening night at La Scala.

## *Milan Leftists Clash With Police Guarding La Scala Performance*

MILAN, Dec. 8 (Reuters).—The police have charged 30 people following violent leftist demonstrations outside La Scala opera house last night as the new season began. Demonstrators protesting the high price of tickets to the performance of Verdi's "Otello"—up to 140,000 lire ($160)—clashed with 5,000 police guarding the theater.

Ten persons, eight of them policemen, were injured. One of the protesters was in intensive care after a gasoline bomb exploded in the crowd.

"It is like going to war," a lady wearing a fur coat said as she arrived at the theater.

"It is no longer amusing coming to a La Scala premiere under such conditions" another patron said.

Press comment today was generally hostile to the demonstrators but the Rome Communist daily Paese Sera described the evening as "an offense to the poor in this time of austerity and to the unemployed."

Another leftist newspaper, La Repubblica, said the point of the protest was lost since the opera was broadcast live on Italian television. "Even the slums have TV aerials," it added.

City officials said it would be some time before they could estimate the damage caused in the incidents.

*A review of the opera performance appears on Page 10.*

## U.S. Helped Ship Overseas Pesticides Banned at Home

(Continued from Page 1)

recommended against its further use on food products. Cotton is considered a food product because crushed cottonseed produces a widely used vegetable oil. product because crushed cottonseed produces a widely used vegetable oil.

Previous shipments of pesticides not registered for use in the United States were defended by AID officials on several counts.

They said that the chemicals help boost food production in some countries where malnutrition is widespread. Those pesticides may also attack devastating pests that are unknown in the United States.

However, Richard Frank, the attorney who represented the environmental groups in the 1975 suit against AID, said: "AID just sort of gave people these pesticides. They have not been informing the foreign governments of the problems connected with them."

The value of all pesticides exported with AID financing has ranged from $28.1 million in fiscal 1970, when they accounted for 13.9 per cent of total U.S. pesticide sales overseas, to $11 million in fiscal 1975, when the share was 1.9 per cent.

AID officials said that they were unaware of any harmful effects of leptophos when financing was approved. However, it was learned that the Environmental Protection Agency had been reviewing the substance's possible impact on the central nervous system of humans since 1974, and had never registered the pesticide for use in the United States.

The pesticide, made in Bayport, Texas, has been marketed abroad as phosvel. It was sold to Egypt, among other countries.

AID has contracted with the Montrose Chemical Corp. in Torrance, Calif., to produce DDT for foreign use, both in "public health" programs for spraying malarial mosquitoes and, until mid-1974, for spraying on crops. India, Ethiopia, Nepal, Indonesia, South Vietnam and Haiti have received DDT for malaria control.

### *Cosmonaut Training Starts for Soviet Allies*

MOSCOW, Dec 8 (AP).—Trainee cosmonauts from Czechoslovakia, Poland and East Germany have arrived at the Star City training center near Moscow to prepare for missions aboard Soviet spacecraft and space stations, Tass said today.

The Soviet Union agreed Sept. 14 with Bulgaria, Hungary, East Germany, Cuba, Mongolia, Romania and Czechoslovakia to include their cosmonauts in missions between 1978 and 1983.



## S. African Leader of Upris... Expects Race War in 5 Ye...

(Continued from Page 1)

no prospect of a political settlement being achieved which will transfer political power to the black majority by peaceful means.

Instead, he attested to the growing sentiment among blacks that there would have to be an "armed struggle, very soon." He also predicted that the organized students would take to the streets and said that planning very probably was taking place underground for such anti-government actions.

In the same quiet voice, he said he could not foresee a South Africa in which whites and blacks "would live happily ever after," because there has been too much bitterness created in the minds of the oppressed black majority. "People know what they will do to the whites if they get in power."

What troubles him deeply, he said, is his worry that lack of adequate education has made the majority unprepared for political responsibility. Several times he repeated his concern, saying blacks who have gone abroad have learned about Marxism and "all the isms" but students denied adequate schooling were "politically ignorant."

**'Communist Horror'**

As a student at home, he said, he heard a lot about the "Communist horror" and that it was the enemy of the white regime. He said he was curious about Communism but had found he did not have the education to grasp its meaning. "I tried to make it my friend but it... heavy," he said, adding ... used the past tense deli...

While in the United St... attend a student confere... said he was attempting ... Americans what they sh... regarding South Africa...

The first essential is for... thing American to get o... said, objecting that U.S. i... and even visiting artist... support the white regim... dismissed the recent neg... efforts by Secretary of ... Henry Kissinger, saying ... don't need a black messi...

## *Sarkis Picks A Technocrat*

(Continued from Page 1)

Israel has indicated that it would not tolerate Arab forces.

A major obstacle to the designation of Mr. Hoss as Premier was removed when former President Camille Chamoun, a rightist leader, announced that he did not object to a government of technocrats, those who are technical experts in their fields.

Earlier, Mr. Chamoun, leader of the National Liberal party, had insisted on a political government.

He told newsmen after seeing President Sarkis today: "I would have wished the government to be formed of politicians, as the present situation in the country is political rather than that of reconstitution."

But he said that he had taken into account that the President wished to avoid political overtones and turn to economic and social issues.

"We should not ignore this viewpoint," he added.

Official sources said that Mr. Hoss would not hold the usual consultations on formation of the government, but would announce the Cabinet list tomorrow night.

## Syria, Jordan ... A Form of Uni... Between State...

AMMAN, Dec. 8 (Reu...) Syria and Jordan today an... ed their intention to cr... form of union of the two... tries and have set up a c... tee to work out the st... unity.

The plan was set out in ... statement issued after a t... official visit here by Syrian ... ident Hafez al-Assad.

A high-level joint com... will work out the steps ... closer cooperation and re... a supreme leadership co... of President Assad and Jo... King Hussein.

The two leaders reviewe... gress toward coordination ... achieved and decided ... more advanced formula o... fying governmental ... should now be drawn u... statement said.

Informed sources said ... that they gave final appro... unification of their eco... educational, legal, telecomm... tions and customs systems. ... move was recommended by ... premiers meeting in Dam... last month.

Jordan and Syria were v... ly at war six years ago over ... Hussein's successful military ... er of Palestinian guerrillas.

## *Israel to Cease ... Jerusalem Dig...*

JERUSALEM, Dec. 8 (Reu...) —Archaeological excavation... Jerusalem's Temple Mount, ... provoked a major controver... Unesco, will cease next ... leaders of the Israeli ... there said today.

The excavations, at the fo... the Wailing Wall, have bee... most completed and the ... will soon be open to the p... Meir Ben-Dov, the mission's ... ty director, said.

The decision to cease the ... was not connected with the ... demnation of Israel by the ... ed Nations Educational, Scie... and Cultural Organization ... added.

# rter Outlay rCampaign pped Limit

## Aides Expect egal Final Tally

By Warren Weaver Jr.

SHINGTON, Dec. 8 (NYT). my Carter has formally re- to the Federal Election ssion general election cam- spending that exceeded the limit by about $185,000—a that technically could President-elect subject and jail sentence.

officers of the Carter maintained, however, figure on outlays was by unspent and unre- advances and that the accounting would see the cratic ticket well within the million ceiling for the post- tion period.

President Ford Committee, Ernst, submitted a report last two weeks before the and the three weeks fol- it that showed total gen- lection spending of $20.7 or more than $1 million the limit.

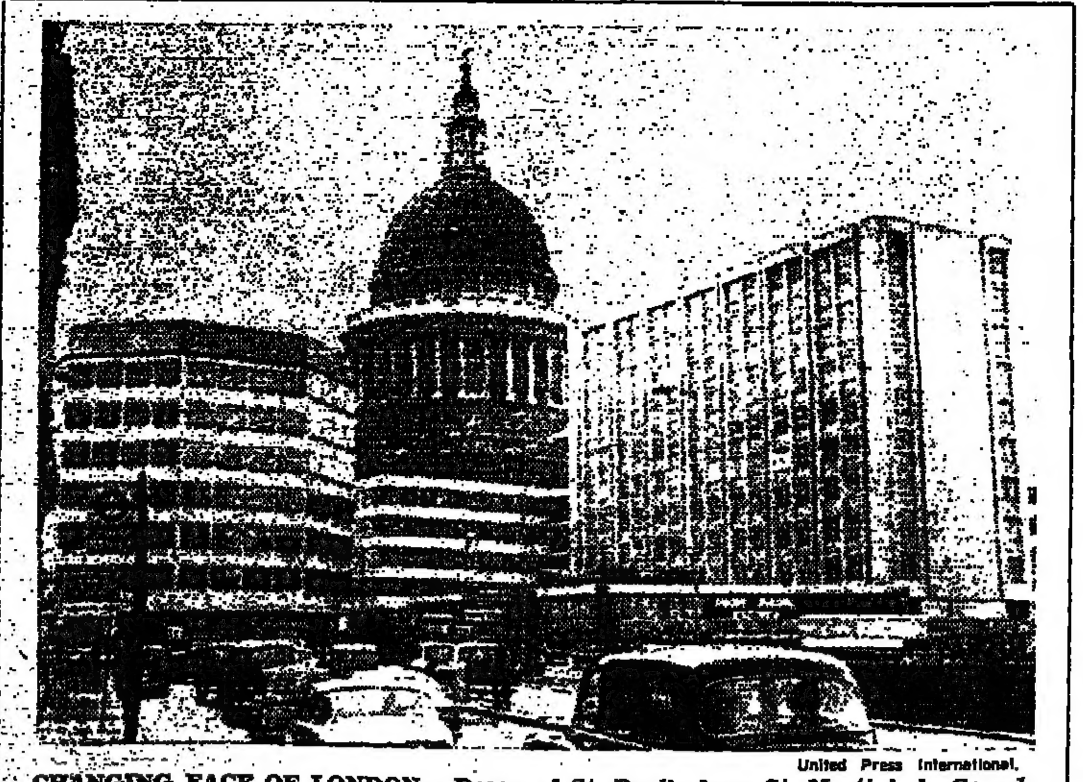
the closing weeks of paign the Republican ocratic candidates spent identical amounts of mon- $7.5 million each. Pres- Ford's campaign treasury million surplus as of but Mr. Carter's had $30,000 remaining in ed funds.

Refund

Andrews, controller of Mondale campaign, a telephone interview that he expected telephone company to re- advance deposit of about by mid-January, which bring the spending figure back within the ceiling.

the Federal Election Com- mission, officials expressed little concern over the Carter report. said that the agency would or succeeding reports to sure that the ceiling was ately observed.

candidate who violates ex- ture limits in the campaign by $1,000 or more is subject fine of up to three times mount of his excess spend- a year in jail or both.



United Press International.

CHANGING FACE OF LONDON— Dome of St. Paul's from St. Martin's le Grand.

# Carter Interviews Former U.S. Advisers

By Helen Dewar

ATLANTA, Dec. 8 (WP).—President-elect Jimmy Carter turned again to the old Washington governmental establishment yesterday in his search for cabinet and subcabinet officials.

A parade of former Kennedy, Johnson and Nixon administration figures had talks with the President-elect in the Georgia governor's mansion here. They were said to be under consideration for jobs in either the defense or foreign policy branches of the government.

None of them were the "fresh new faces" that Mr. Carter and his aides had promised to bring into the new administration next month.

They included Paul Warnke, an assistant defense secretary in the Johnson administration who is under consideration for secretary of defense or director of the Central Intelligence Agency; James Schlesinger, who held those two posts in the Nixon and Ford administrations and has been mentioned for them again; and Zbigniew Brzezinski, a former State Department official, Columbia University professor and Carter campaign adviser who has been mentioned as a possible national security adviser to the incoming president.

Mr. Carter also interviewed two Washington lawyers, Joseph Califano, who held both defense and domestic policy positions in the Kennedy and Johnson administrations, and Patricia Harris, a former Howard University law school dean and ambassador to Luxembourg.

Mr. Califano and Mrs. Harris have been mentioned for various posts in the Carter administration but also may have been asked here for consultation on other matters.

Mr. Carter is scheduled to meet with several other prospective appointees today before flying to Washington for two days of meetings. Among those he will see here is California Institute of Technology President Harold Brown, a former secretary of the Air Force, who is considered to be a leading candidate for secretary of defense.

None of the other visitors today was announced. Charles Schultze, who was director of the budget in the Johnson administration and is now at the Brookings Institution, is high on a list of prospective defense secretaries that is circulating on Capitol Hill, but there was no word on whether he will meet with Mr Carter here or in Washington this week.

Although Mr. Carter is believed to be nearing decisions on top cabinet and subcabinet posts in the economic and defense fields, no appointments are expected before he returns to Plains, Ga., late Friday, sources said.

**Aides Lack Defense Data**

WASHINGTON, Dec. 8 (UPI).—Mr. Carter's transition team at the Defense Department is being hampered by a lack of information on the more than $120-billion military budget President Ford will submit to Congress before leaving office in January, the head of the team said yesterday.

Richard Steadman, a New York investment banker who is Mr. Carter's senior representative at the Pentagon, said he had no indication when he will be provided with information on the military budget.

**News Analysis**

# rter Cabinet Appointments Held Reassuring

By Hedrick Smith

SHINGTON, Dec. 8 (NYT). his first two Cabinet ap- ments, President-elect Jim- Carter has offered reassur- to the worlds of business diplomacy and signaled to ians that he will dominate -making in the crucial areas eign policy and the budget. has underscored the urgen- feels to move quickly in field sby announcing ahead other Cabinet appointments choices of Cyrus Vance as ary of state and Bert Lance ector of the Office of Man- nt and Budget.

he has quite deliberately a contrast with the Nixon- dministration and the high- sonalized, shuttle diplomacy retary of State Henry Kis- with the selection of a facing negotiator and crisis er like Mr. Vance to take of the State Department. doing, he has laid the work for setting foreign objectives from the White

reassuring allies and ad- ies was clearly in his mind. before the appointments announced, one of his long- aides remarked privately Mr. Vance was a figure of ityl and stature, widely ted in this country and , and that Mr. Lance, while ell known nationally, had very favorable reputation itical and economic circles Southeast.

their selection, Mr. Car- o began to build an ad- tion thmat will blend ex- ed Washington insiders ewcoers to the federal gov- it drawn from around the .

Mr. Carter's news confer- Mr. Lance came across as lable, self-confident Geor- nker with the gregarious ity of a Southern politician. r. Vance as an experienced diplomat with the discreet of a man accustomed to ays of Yale, Wall Street e Eastern establishment.

ng his colleagues in Geor- r. Lance has a reputation fiscal conservative, and the foreign policy com- of the Democratic party, regarded as a moderate

neither is known for nced views or a clearcut ical stripe that would au- gur the policy line of the Carter administration. Both are described by associates as good technicians, loyal team players prepared to follow Mr. Carter's lead, a point that Mr. Lance emphasized when someone asked whether he would be the driving force behind the new administration's plans for reorganizing the government.

"I am sure that the President is going to be the driving force behind the reorganization," Mr. Lance replied. "I only hope that I'll be able to keep up and carry out what he wants done."

Those who know Mr. Vance say that his style in the past has been to let the White House or other superiors take the lead.

In both men, Mr. Carter feels he has found persuasive advocates with Congress as well with the business community or diplomatic partners. As a high Defense Department official in the Johnson administration, Mr. Vance carried weight with Capitol Hill. And Mr. Carter's aides say that, when he was governor or Georgia, Mr Lance was their best salesman with the Georgia Legislature.

It is against the backdrop of Mr. Carter's own relative newness to the field of foreign affairs that many here regarded Mr. Vancey's extensive experience with the Johnson administration as reassuring to such diverse diplomatic partners as the British, Israelis and Russians, all of whom apparently let Mr. Carter know through private channels that they thought highly of Mr. Vance.

Not only has the lawyer gained a reputation for calming troubled relations with allies during diplomatic missions to Cyprus and Korea in the late 1960s, but also for effective negotiations with the North Vietnamese in Paris in 1968 and for leading private delegations to Moscow to talk about arms control and other means of easing East-West tensions.

In Mr. Vance, Mr. Carter has chosen someone in the mold of Dean Rusk in the Kennedy administration or Christian Herter at the end of the Eisenhower administration. The professional diplomats who know Mr. Vance expect him to run a well-organized department but to maintain a low profile.

Indeed, in his own brief comments about Mr. Vance and Mr. Lance, the President-elect stressed their competence rather than conceptual brilliance or policy innovation. The one common quality for which he praised both men was his expectation that each would be "a good manager" of his agency or department. And in harmony with that, Mr. Vance immediately indicated that he would shum what Mr. Carter derisively termed the "Lone Ranger" diplomacy of Mr. Kissinger and would seek to "delegate responsibility" to his aides and to other negotiators.

Despite several years in high government posts, Mr. Vance has left little public record of strong personal views on policy issues. Earlier this year, he wrote an article for The New York Times advocating stricter measures to control the sale of U.S. arms to other countries.

AP

Bert Lance

# U.S. Exhibition In Moscow Gets 2d Bomb Threat

MOSCOW, Dec. 8 (AP).—The U.S. Bicentennial exhibit here was evacuated and closed for the day today after a telephoned bomb threat, but no bomb was found. It was the second such incident in three weeks.

About 1,600 visitors were in the Sokolniki Park exhibition hall when an anonymous caller said a plastic explosive would go off. U.S. officials said the Russians were sure that the threat was a hoax, but Frank Ursino, the exhibit's U.S. director, decided to close the show for the day.

The bomb squad was not called this time, as it had been after a Nov. 17 threat. On that occasion, it took more than three hours for the quad to arrive and it found nothing. U.S. officials said privately they suspected that the first bomb threat was an attempt by Soviet officials to discourage visitors.

A brief search was made today by the exhibit's U.S. staff. Up to the time the pavilion was evacuated, 9,800 persons had filed through and 1,000 more were waiting in line in a wet snow.

"This could have been our biggest day," Mr. Ursino told a reporter. So far, 214,000 persons have seen the show, which opened Nov. 11. It closes Monday.

*After Leaving the White House*

# Ford Expected by Associates To Keep Active Political Role

By Lou Cannon

WASHINGTON, Dec. 8 (WP).—President Ford is expected to continue to play an active political role after he leaves the White House next month, according to aides and intimates who have discussed his future with him.

A close assistant, while emphasizing that "nothing has been set in cement," gave this picture of Mr. Ford's likely role once Jimmy Carter becomes President:

Mr. Ford will serve on a Republican policy body, probably a newly created unit modeled after the Republican Coordinating Committee of the mid-1960s. As a narrowly defeated and widely respected former president, Mr. Ford will be looked to by other leading Republicans as a principal spokesman on public policy issues.

Mr. Ford will also be available to help his party as needed. While not expected to travel at the sometimes frenetic pace he maintained as House minority leader or vice-president, he will be available to speak at key Republican fund-raising functions.

**Recruiting Candidates**

Most likely, he will also recruit some House members or other prospective Republican candidates to run for Senate seats or governorships in 1978.

But Mr. Ford is expected to be selective in his political activity, finding plenty of time for the recreation he enjoys. Although nothing has been announced officially, it is considered virtually certain that Mr. Ford will divide his time between golfing in Palm Springs, Calif., where he probably will purchase a home, and the skiing area of Vail, Colo., where he already owns a residence.

One of Mr. Ford's associates made what he called "an educated guess" that Mr. Ford might also accept the presidency of a private college, perhaps in California. This aide said that he expected the President to follow the example of many of his predecessors and write a book, although perhaps not immediately.

The general picture given of Mr. Ford by those who have seen him within the last two weeks is of a competitive, somewhat disappointed man gradually emerging from the doldrums of defeat.

"Sure, he was down in the dumps right after the election," an aide said. "Who wouldn't be after he came from 30 points back and just fell short? But he has accepted defeat now and he is looking ahead."

The public sign of this acceptance has been Mr. Ford's insistence on a smooth and harmonious government transition to the Carter administration. A more private sign has been his firm and repeated rejection of entreaties from some Republicans to lend moral support to challenges to the close election results in Ohio and other states.

The President has pointed out that he won more states narrowly than Mr. Carter did and has said it would be unbecoming of him to leave office asking for a recount.

White House spokesmen and the President's friends have gone out of their way to discount stories that Mr. Ford is despondent. His wife, Betty, last week told newsmen that his attitude is "very good" and also denied that the President dislikes Mr. Carter.

Mr. Ford is again seeing a fairly steady stream of visitors and granting some press interviews.

Whatever he does when out of office, he will be able to live comfortably. His presidential and congressional pensions will give him an income of more than $100,000 a year and he will have various benefits for the rest of his life under two laws that apply to former presidents.

## John Garner Concedes

SEATTLE, Dec. 8 (AP).—John Nance Garner, Republican challenger for the Second District congressional seat held by Rep. Lloyd Meeds, conceded yesterday after gaining only a handful of votes in a recount.

# Newsman Wins L.A. Court Fight

LOS ANGELES, Dec. 8 (AP).—Newsman William Farr, who served 46 days in jail to protect a news source, has won what appears to be the last round in his five-year contempt-of-court battle with the judge in the Charles Manson trial.

The California Second District Court of Appeal said that the Los Angeles Times reporter could not be punished further for refusing to name names.

A three-justice panel held this week that Superior Court Judge Charles Older was trying to prosecute Mr. Farr twice for the same offense—his refusal to tell the source of a story detailing plans by the Manson "family" to kill numerous celebrities.

*Christmas 1976*

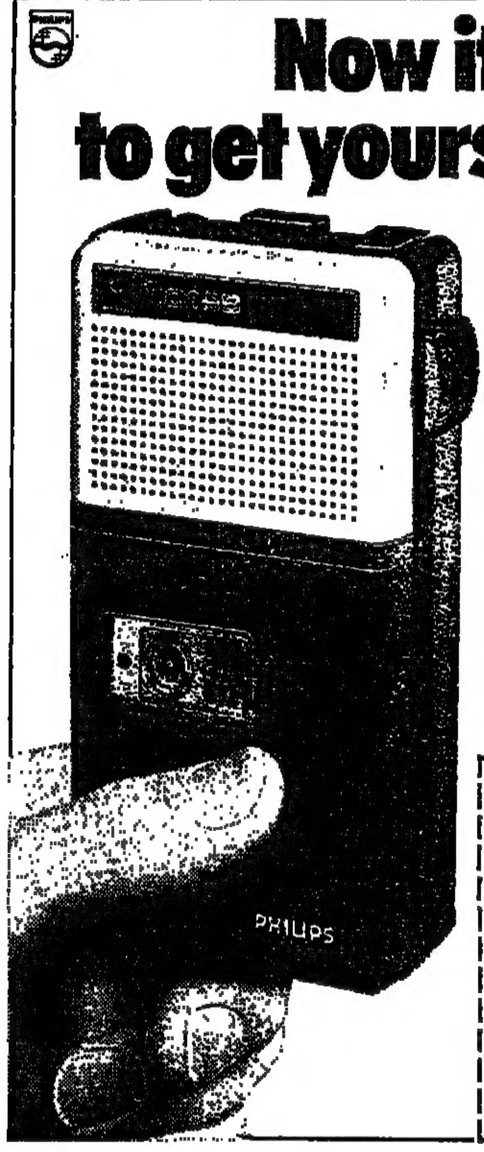
# Is Last for National Tree

WASHINGTON, Dec. 7 (AP).—A 44-foot Colorado blue spruce that has been the national Christmas tree is dying from root damage and this season will be its last. "It will be next year's Yule log," said National Park Service ranger George Berklacy as workmen used a crane to adorn the 45-year-old tree.

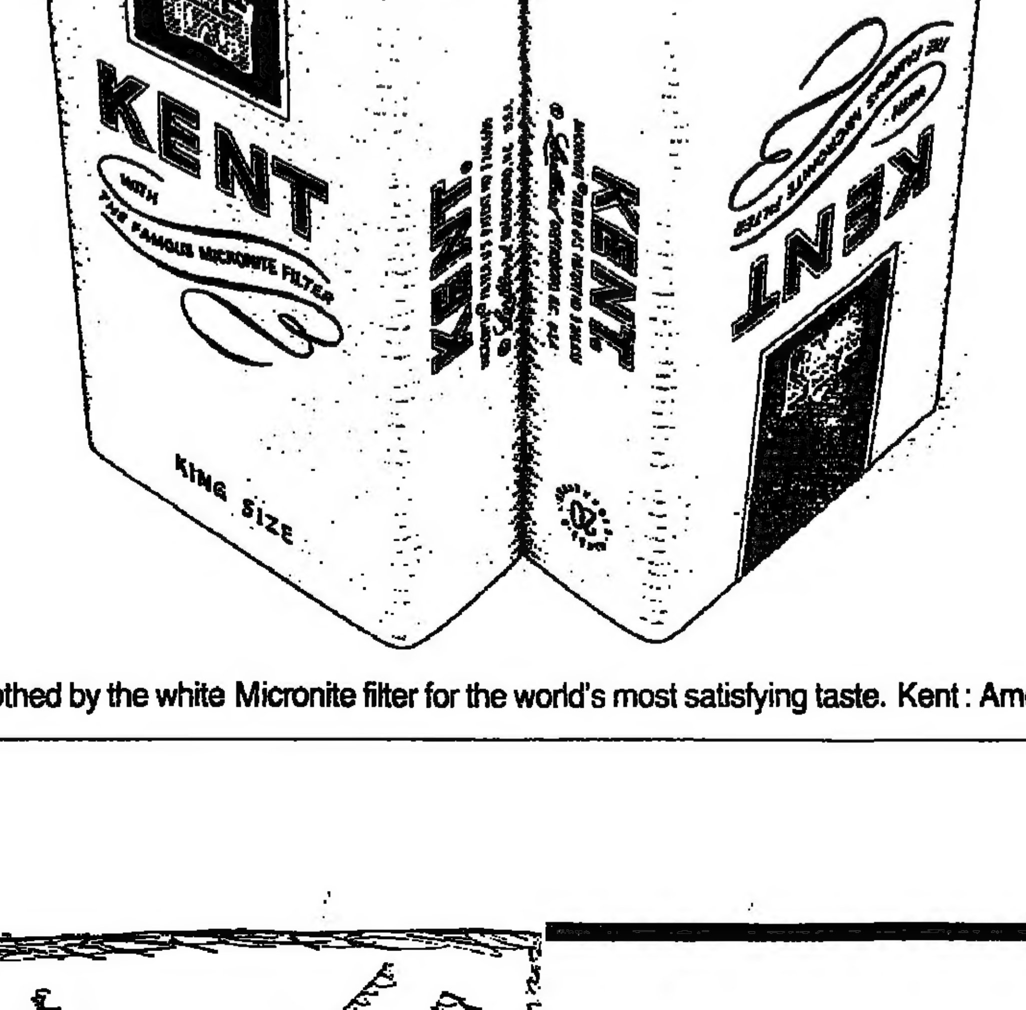
The tree was transplanted in 1973 from Shickshinny, Pa., to the Ellipse behind the White House to serve as the first permanent Christmas tree. Previously, cut trees were used.

The Park Service plans to replace it with a new permanent tree next October, "but this time we will try to locate one in Virginia or Maryland and one of roughly the same elevation," Mr. Berklacy said.







*Theft, Fraud, Embezzlement, Blackmail*

# *Crimes by Computer Are Increasing in the U.S.*

By Thomas O'Toole

WASHINGTON, Dec. 8 (WP).—The National Institutes of Health have just reworked the computers containing detailed records of their psychiatric patients so that only doctors and nurses given secret codes can retrieve the records.

The Secret Service has rewired the computer where it keeps the names of 40,000 people it identifies as potential political assassins so only a handful of coded agents can reach into the machine for their whereabouts.

These examples spotlight a growing concern in the federal government with a new kind of criminal, the specialist who can use a computer to help him steal, defraud, embezzle, sabotage and even blackmail.

The Secret Service tightened security on its file partly because it does not want any potential assassins infiltrating the file and knowing they are being watched. One reason NIH is putting new locks on psychiatric files is a fear that blackmail might be behind an intruder's attempts to steal the records of members of Congress or the Cabinet hospitalized with mental problems.

**Consulting Firms**

Consulting firms Ernst & Ernst and Arthur D. Little are advising six federal agencies on how to avoid computer fraud. The Army teaches its logistics officers about computer fraud and the FBI runs a four-week course where frauds are simulated on a computer and agents in training told to break them.

The Department of Defense Computer Institute now employs in its security and privacy department eight people who investigate breaches of computer security. The National Security Agency has a similar team, but its main job is to devise new ways of protecting the agency's supersecret computers from infiltration.

Crime by computer is on the rise, inside and outside the federal government. More than 400 cases have been documented in private industry in the last eight years, and the victims have lost $200 million. A study by Congress's General Accounting Office identified 69 computer crimes that in the last two years defrauded federal agencies of $2 million.

In a case at the Internal Revenue Service, a programmer noticed a buildup of unclaimed tax credits in a computer printout, then rigged the machine to transfer the money to a relative's account. Luck ran out on him when the real claimant appeared to get the money.

An Air Force sergeant computerized a fuel-ordering system for Kelly Air Force Base in Texas, then used the computer to buy bogus fuel from suppliers who did not exist. The computer freely issued checks to the fictitious companies set up by the sergeant and his accomplices.

The checks were sent to banks where the conspirators had opened accounts for their bogus companies. The sergeant manipulated the computer's memory so it did not miss the fuel Kelly AFB was not getting. By the time the sergeant was caught, he had stolen $100,000.

A Midwest bank president was blackmailed by a teller who forged access to a computer to retrieve the bank president's school records, which showed he had flunked out of college.

A disgruntled employee of a West Coast company wrote a program for its computer so that six months after he quit, the program he left behind erased every account receivable from the computer's memory. The company no longer knew who owed it money or how much. It could not send bills. It put an advertisement in a West Coast newspaper pleading with customers to pay their bills. They did not and the company went bankrupt.

Computer espionage is here, too. The State Department almost expelled a Soviet diplomat six years ago for attempting to recruit employees of a computer manufacturer which had access to Pentagon computers.

Of 60 cases involving computer fraud in banks, just three were solved by audits. None of the 69 federal cases cited by the GAO was solved through audits.

In one case a computer services firm employee was turned in by his wife partly because he was spending the money he stole from the company on another woman. A bank teller who used computers at Union Dime Savings Bank in New York to embezzle $1.5 million was caught because he lost the money at the racetracks.

Donn Parker of the Stanford Research Institute, a Palo Alto, Calif., consulting firm, said he thinks at least 85 per cent of computer criminals are not caught.

Of the 200,000 computers at work in the United States only 200 are rated "secure" by computer experts. These are the machines serving the State Department, the National Security Agency, the FBI, the Pentagon and the CIA.

Some computer experts are not even sure about the machines at these agencies. For some reason a Pentagon computer started spitting out a battle plan for World War III a few years ago at a terminal that was not "cleared" to receive the plan. The positions of every warship, every carrier, every aircraft were laid out in the plan, which was seen by at least 10 persons.

Some experts believe computer crime will grow and involve larger sums and bigger crimes. So far, the record for computer crime is held by 22 men who were convicted in the 1973 Equity Funding scandal, where a computer at the Los Angeles-based firm was used to write 64,000 fake insurance policies that were sold for $2 billion.

The bogus insurance policies were stored on computer tapes with nothing on paper. The tapes revealed only real insurance policies to auditors. The 64,000 fake policies could only be called up by a secret code, which was known only to the 22 Equity Funding officials convicted in the fraud. Seventeen are in prison; five got off with fines and probation sentences.

Associated Press.
Leonid Brezhnev with his great-granddaughter Galya, from the photo biography released on 70th birthday.

## *Biographical Film, Photo Book Mark Brezhnev's 70th Birthday*

MOSCOW, Dec. 8 (UPI).—Soviet authorities today announced publication of a photo biography and release of a documentary film to mark the 70th birthday of the Communist party general secretary, Leonid Brezhnev.

Mr. Brezhnev will be 70 on Dec. 19, and the newly announced book and film are the latest entries in a rising flood of public honors for him.

The press agency Tass released a 25-page review of the Brezhnev photo biography, published by Moscow's Planeta publishers, entitled, "Leonid Ilyich Brezhnev: Pages of Life, Pages of the Epoch."

"The numerous photographs featured in the album tell a vivid story of the life and activity of Leonid Brezhnev, the son of the Leninist party, the son of the working people who is working with tireless energy for peace, the greatness and prosperity of his socialist motherland," Tass said.

Tass also announced that the documentary film of the life of Mr. Brezhnev, entitled "The Life Story of a Communist," was premiered in his home town of Dneprodzerzhinsk, in the Ukraine.





*Break in Soviet Nonproliferation Stand*

## Russia Will Sell India Atomic-Plant Water

By Don Oberdorfer

WASHINGTON, Dec. 8 (WP).—The Soviet Union has agreed to sell 200 tons of heavy water for use in India's nuclear program following Canada's refusal to supply the material.

The decision, which became known when India reported the transaction to the International Atomic Energy Agency, is a rare case of Soviet willingness to supply nuclear materials to a country with a bomb-making capability. As such, it is causing concern among some U.S. officials and senior members of President-elect Jimmy Carter's incoming team.

Soviet cooperation is vital to the plans for international action to curb the spread of nuclear weapons, and until now the Russians have been more cautious than the United States and other Western countries in their nuclear exports.

In a meeting last month of the "London Club" of nuclear-exporting nations, the Soviet Union proposed to tighten controls on atomic sales to states that so far do not have nuclear arms. Several European countries are reported to have reservations about the far-reaching proposal. The United States asked that a decision be put off until the next meeting, which will take place after the Carter administration is installed Jan. 20.

The decision to sell the heavy water to India appears to some experts to be inconsistent with the generally tough Soviet stand. These experts suggest that in this case, Russia placed a higher value on its bilateral relations with a friendly country than on its nonproliferation objectives.

Soviet officials have indicated that the heavy water is intended for use in the Canadian-supplied Rajasthan Atomic Power Plant and that international inspection and safeguards will be required as well as a pledge from India that the material will not be used to make atomic weapons. In view of this, some U.S. experts believe the Soviet sale, while it is unusual, does not contradict Russia's nonproliferation stand.

Heavy water, which is a chemical found rarely in nature, is used to help control nuclear reactions.

U.S. and Canadian-supplied heavy water, some of which was sold directly to India in 1956, is believed to have been used by India in producing its May, 1974, nuclear explosion.

India now produces a small amount of heavy water in plants of its own, but not enough to fuel a major installation such as the Rajasthan power reactor. The 200 metric tons to be sold by Russia is believed to be just about enough to "load" and resupply the reactor, which will provide power to a large area of northwest India.

Canada halted nuclear sales to India after the 1974 explosion and made the cutoff permanent this May after two years of unsuccessful negotiations on anti-bomb assurances. Among other things, Canada wanted India to place all its nuclear facilities under inspection by the IAEA.

The Soviet proposal at last month's London meeting would require a state without nuclear arms to open all its atomic facilities to international safeguards as a condition of future purchases. According to State Department officials, the U.S. favors such a plan in principle if other countries agree to abide by it.

## *Squatters Leave Farms in Mexico As Police Watch*

CULIACAN, Mexico, Dec. 8 (AP).—Sinaloa state police supervised the withdrawal of peasant invaders from private farms yesterday, but landowners reported resistance from several groups of squatters.

Reports from state officials and landowners indicated that about 20 of 80 peasant groups had suspended their demonstrations in the northern half of the state.

"The peaceful withdrawal began today without any violent incidents," Sergio Herrera y Cairo, assistant attorney general and chief of state security forces, said yesterday.

He said his policemen would continue to move peasants off the land today and warned that squatters who move back onto private farms would face "more drastic action."

Two farmowners, reported that several groups of peasants entered their property in the Guasave Valley yesterday and seized five tractors.

Between 3,000 and 9,000 landless peasants occupied about 100,000 acres on private estates last week, demanding that the government give them land. They charge that the owners are violating the constitutional provision that limits individual landholdings to 250 acres. The occupation nearly paralyzed work on the rich vegetable and grain farms in the Guasave, El Fuerte and El Carrizo Valleys.

## Giscard Back in Paris

PARIS, Dec. 8 (UPI).—President Valéry Giscard d'Estaing arrived in Paris today following an official visit to Yugoslavia.

## *Europe Court Upholds Danish Sex Education*

STRASBOURG, Dec. 8 (UPI).—The European Court of Human Rights has ruled that Danish parents cannot ask for their children to be exempted from compulsory sex education in state-run schools.

The court said that the lessons on sex "in no way amount to an attempt at indoctrination aimed at advocating a specific kind of sexual behavior and do not affect the right of parents to enlighten and advise their children."

## *France Reducing Value-Added Tax To 17.6% From 20*

PARIS, Dec. 8 (Reuters).—The government today announced that the value-added tax will be cut from 20 per cent to 17.6 per cent on Jan. 1.

The reduction, which affects most industrial products, will cost the government 8 billion francs ($1.6 billion) in lost revenue next year.

A communiqué said the move would bring French VAT rates more into line with those of other Common Market countries.

Deputy Finance Minister Michel Durafour told the Cabinet that although the cut in the VAT was not a remedy for price increases, it should help support the current price freeze until the end of the month.

Prime Minister Raymond Barre said in September that the VAT would be reduced to 17.6 per cent as part of his fight against inflation.

The government also announced measures to reduce unemployment, which officially totals 1 million. A spokesman said the state would publish a monthly list of job offers by region and by profession. It will also extend the benefits of apprenticeship contracts and of credits to firms that create new jobs.

## Man Shot in Attempt To Flee East Germany

FRANKFURT, Dec. 8 (UPI).—A man apparently trying to flee to the West was shot on the East-West German border early today, possibly by a booby trap, West German border police reported.

Police said they heard a shot followed by a man's cry, "Help. I am dying. Let me across." Later they saw East German border guards carry a man to an automobile.



## Seoul Insi[...] U.S. Retur[...] KCIA Age[...]

### Denies He Defe[...] In Bribery Scan[...]

SEOUL, Dec. 8 (UPI).[...] ing government official[...] ed today that the Unit[...] deny refuge to a South[...] Central Intelligence Age[...] ative, claiming that [...] government has found [...] to believe that the alleg[...] tor "chose to stay in th[...] States of his own will."

The official, speaki[...] group of foreign corre[...] and asking not to be [...] brought up the case [...] Sang Keun. Mr. Kim, [...] of the staff at the Kor[...] bassy in Washington [...] defected last week and [...] have volunteered to the[...] formation on how South[...] agents bribed U.S. con[...] to influence pro-Seoul le[...]

"The Korean side [...] demands the United [...] authorities reinstate [...] Kim's physical freedom[...] cordance with internati[...] and practices," the offi[...] said.

"The Korean side has [...] ground to believe that [...] Kim chose to stay in th[...] States of his own will," a[...] by the United States aut[...] the Seoul side went on.

**Question of His I[...]**

Published reports in [...] ton have said Mr. K[...] deputy station chief for[...] Central Intelligence Ag[...] the U.S. capital. He r[...] sought asylum following[...] tion of reports that KCI[...] have bribed congressmen[...]

The Seoul official did [...] tify Mr. Kim as the KCIA[...] station chief. He referre[...] only as "Counselor Kim."

"The Korean gover[...] through diplomatic chan[...] repeatedly requested th[...] government to restore C[...] Kim's physical freedom [...] arrange an interview wi[...] by the representatives [...] Korean Embassy in the [...] States," the official said.

"The United States has [...] failed to reply to this [...] It has even withheld info[...] on Counselor Kim's presen[...] abouts, and his family h[...] placed under surveillan[...] agents of the U.S. auth[...] the Seoul official declared[...]

**Blackout Protested**

SEOUL, Dec. 8 (AP).—[...] of Korean students deman[...] day that their governmen[...] them the full story of the [...] bribery scandal in Washin[...]

Plainclothes police bro[...] demonstration by about [...] dents, most of them fr[...] Seoul National Universit[...] school, demanding the lif[...] the government's blacko[...] news of the scandal. A [...] of the demonstrators w[...] ported arrested.

## Park Foe Convicte[...] By S. Korean Cou[...]

SEOUL, Dec. 8 (NYT[...] former member of the Sou[...] rean National Assembly wa[...] victed on charges of electi[...] violations yesterday and s[...] ed to a year's imprisonme[...]

The Seoul District Cour[...] Kim Ok Son, 42, a former [...] tion lawmaker who denou[...] President Park Chung Hee[...] dictator, guilty on several [...] including an assault on poli[...] during the 1971 parliam[...] election. She was not jaile[...] mediately as the verdict car[...] two-year stay of sentence pe[...] appeal.

## Paris Talks Beg[...] On Press Disput[...]

PARIS, Dec. 8 (UPI).—[...] trade union leaders and [...] ernment-appointed mediat[...] gan talks today on a pre[...] pute that mushroomed in[...] widespread newspaper strik[...] a show of force by leftists.

As the unions agreed to [...] tiate with the government, [...] ing dailies appeared on [...] newsstands for the first [...] since Sunday, when police [...] striking printers from the [...] of the newspaper Parisien L[...] ending a 20-month occu[...] and sparking a storm of [...]

At a news conference [...] Prime Minister Raymond [...] said he had personally [...] the Interior Ministry to [...] to evacuate the Parisien [...] offices.

## Plainclothes Police[...] To Ride Rome Bus[...]

ROME, Dec. 8 (AP).—[...] clothes police will begin [...] buses after dark here [...] fort to halt a wave [...] against public transport [...] Police officials [...] pistol attack on a bus [...] led bus drivers to stop [...] protest the lack of security [...] have been more than [...] recent weeks of vandals [...] stones or firing [...] buses for no apparent [...] one has been seriously [...]

# Vast Networks of Air-Raid Shelters Tunnel Under the Major Cities of China

By Drew Middleton

[DAI]REN, China (NYT).—With [a con]fident smile, the hotel [manag]er pushed a button. The [...]n floor of the rather dingy [...] slid aside revealing an [entran]ce to the tunnels of Dai[ren, w]hich are more than 60,000 [...] long and can shelter 50,000 [...]s from air attack.

[The] tunnels—they are really [mass]ive air-raid shelters—are [match]ed by similar systems [...]h Peking, Shenyang and [other] major cities and by smaller [one]s—beneath farming com[mun]es. This correspondent, who [...] a three-week tour of the [...] forces at the invitation of [the] Defense and Foreign [Minis]ter, walked for 45 minutes [...] main tunnel beneath Dai[ren w]ithout retracing a step.

[The] construction, begun as a [...]tion against possible Soviet [...] is part of China's huge [milit]ary defense effort, which [in]cludes an armed militia of [more] than 5 million that staffs [anti-ai]rcraft defenses and pro[vides] a trained reservoir for the [People']s Liberation Army.

[In its] feud with the Soviet Union [Chi]na's major strategic pre[occupa]tion. Military and civilian [officia]ls, while critical of the [U.S. m]ilitary presence in South [Korea,] which they term an oc[cupati]on, are believed by foreign [analy]sts to be satisfied that [the A]mericans there offer at [least] a partial counter to Soviet [...]ons in the northwestern [part] of the Pacific.

**[C]amranh Bay Facilities**

[The] end of the Vietnam war [left] China with no fears [of U.]S. operations in southeast [Asia,] but another problem has [arisen] there. The Chinese are [appar]ently worried over the pos[sibility]—they rate it no higher [than] that in public—that the [Vietnam]ese will strike a bargain [with] Vietnam, exchanging ma[terial] aid for the use of Camranh [Bay] and its airport.

[...] for the Chinese strategic [view] of Japan, it is ambiguous. [...]e the national memory re[sists] further Japanese rearma[ment,] Chinese officials are aware [that] the United States is dis[satisf]ied with Japanese defenses, [partic]ularly anti-submarine and [anti-]aircraft techniques. The of[ficial]s turn aside questions on [an e]xpanded Japanese defense [...] but foreign sources be[lieve] that, granted China's con[cern] over the Soviet Union, it [woul]d reluctantly accept such [expan]sion.

[Ind]ia, with which China was [enga]ged in a frontier conflict [in t]he early 1960s, no longer [seem]s to worry the Chinese. They [...]tins and give political sup[port to] Pakistan, however.

[Disc]ussing the shelters, Liu [...]in, the Foreign Ministry's [repre]sentative in Dairen, said [the] facilities there and others had been dug in obedience to Chairman Mao Tse-tung's dictum after the fighting with the Russians at the Ussuri River border in 1969. His advice, endlessly repeated, was to dig deep tunnels, store grain everywhere and avoid seeking hegemony over others.

**Province of China**

The third admonition, Chinese officials invariably emphasize, does not extend to Taiwan, which they regard as a province of China whose future is to be settled by them alone.

The Dairen tunnel is a result of the labor of 500,000 workers, the vast majority volunteers from factories and shops and from agricultural communes on the outskirts.

In the first section of the tunnels, built in 1970, the walkway is four feet across, the ceiling seven feet high. The lighting is bright in the main passage but dimmer in side passages that lead to reservoirs, ammunition dumps and first-aid posts.

Musical accompaniment is provided by a soprano's voice transmitted by a closed-circuit system; when she flats, which is often, even the solemn Chinese guides wince.

There is an Alice-in-Wonderland air about the place, but it is not for children. Mr. Liu indicates weapon slits—angled into the wall—"a machine gun there, a rifleman to back up the machine gun over there."

There are six reservoirs and large silos for wheat and rice. Passages lead to decontamination centers for use after nuclear or gas attacks and to clinics, schoolrooms, kitchens, machine shops, dormitories and assembly halls. Ventilators pump in fresh air and machines keep it reasonably fresh.

In an emergency, the officials said, the shelter could be filled within 10 minutes. Should hostile attacks continue, they said, war production could be carried on by small factories in the tunnels.

At Shenyang, the electrical-equipment works displayed underground power stations that were being built for installation in tunnel systems. These are smaller than the normal stations but were said to have about the same capacity.

The tunnels' exits, the officials said, lead to the hills around the city, where those who escape would "carry on the people's war against the invaders."

**Red Guards' School**

Defense of the tunnels would rest on militiamen firing rifles and machine guns from pillboxes set in the walls at almost every passage turning. The militia have improvised other defenses; among them a wide-bladed propeller set in the passage that looked as though one hand grenade would demolish it and steel mats studded with three-inch spikes.

Smaller tunnels have been built under schools and apartment houses through northeastern and eastern China. That at the Red Guards' school on the outskirts of Dairen had been carved out of the hillside to a length of 1,600 yards, with space for seven classrooms accommodating 80 pupils each, a clinic, toilets and showers and a decontamination room.

Even farther into the hills that ring Dairen to landward, the Chinese have built what they call the department store tunnel—a wide, crescent-shaped excavation stocked with food, clothing, bicycles, radios, even toys.

Sales people stood behind the counters, but there was a grotesque artificiality about the scene. In war, the toys and bicycles would no doubt give way to food, water and ammunition and field hospitals.

The Chinese insist that the tunnels would be safe against air attack. The main shelter area in the center of Dairen is 7 to 30 yards below the surface and in many places has been cut through solid rock.

Nuclear attack and the consequent radiation would raise serious problems, the officials conceded. Steel doors have been built in some areas to keep out radiation. Gas masks produced by local industry would be available in the event of chemical attack.

The Chinese assumption is that those remaining in the tunnels would carry on local government, produce spare parts and ammunition for the military and maintain communication with other tunnel communities. Success, they concede, rests on the capability of the militia, a force without parallel in other major military powers.

**100 Million in Militia**

Wu Hsiu-chan, deputy chief of the general staff of the Defense Ministry, asserted: "We have more than 100 million militia. We can say for certain that the equipment for the present militia is better than in the past. At present the militia is getting quite enough ammunition. There lies the source of our strength."

The effectiveness of the militia's manpower and weapons depends on the kind of war initiated. The militia would be important, even decisive, in the event of full-scale invasion; its effectiveness in a long-range war focused on key frontier areas would be less.

Every industrial plant, light industrial factory and farming commune supports a militia formation. Those paraded for a foreign visitor, ranging from teen-agers in a high school to army-directed formations in a textile machinery factory in Shanghai, displayed what appeared to be a high level of basic training and an acute shortage of modern weapons.

The factory boasted a 3,000-man militia unit with 1,200 in the "basic," or highly trained segment. Clad in blue coveralls and bamboo hard hats, 32 of the basic militia, about a third of them women, were assembled to demonstrate their ability to defend the factory, under a veteran regular soldier's command. All were armed with semi-automatic rifles with fixed bayonets and went through bayonet drill with seeming enjoyment.

At Dairen and Nanking, children of 10 to 12 conducted the same type of exercise. They do so, the visitor surmises, only because the high command believes that, in a war, the ultimate combat will be on a one-on-one basis.

When a whistle blew in the Shanghai factory, the militia rushed to the anti-aircraft guns nearby. The covers were torn off and the sights adjusted, and a hail of fire was directed at balloons. Extra militia, those less trained, kneeled and added their rifle fire to the general clamor.

**Training Each Week**

The militia at this factory do one to two hours of training a week. Their weapons were clean and they were alert. Although the gunners seemed to believe that their weapons were the best available, the quadruple-mount heavy machine guns they were firing are primitive compared with U.S. and Soviet weapons.

The officers said the guns could fire 660 rounds a minute in action—a barely adequate rate against modern aircraft if—it is a big if—there is adequate warning and radar tracking.

The officer who commanded the unit said that no radar was available and that information on an enemy's flight course would come from a central headquarters in Shanghai. Soviet fighter-bombers, he indicated with his hand, would come in at low level.

Did he expect to knock down fighters strafing at 600 miles an hour without radar sighting for his machine guns? He shrugged and said that he knew that surface-to-air missiles would be more effective but that for the present, the factory's defense would have to rest on the guns deployed.

**'Lessons of Mao'**

His forces, he said, are well trained in marksmanship, grenade-throwing and bayonet drill, and they know the precautions in a nuclear attack. "We drill in anti-nuclear and anti-gas warfare, in first aid and in emergency repairs," he said. "We have studied the lessons of Chairman Mao Tse-tung and we are prepared and self-sufficient."

The militia also receives lengthy ideological instruction on the achievements in the war against the Japanese and the Chinese Nationalists. "The young people must be reminded of the sacrifices of their fathers and mothers—they must not forget what the individual can do," a militia instructor said.

What remains unclear is how China would counter air and missile attacks without extensive radar and without a practical communications system that embraces both the regular forces and the militia.

In this context, commanders in factories and in agricultural communes left unanswered the question whether the militia effort was partly for show. Its ultimate value would presumably be in the event of a mass invasion.

"Look, this fire port commands the well and this the pigsty where the invaders will surely go," an elderly veteran said in a village south of Peking.

What happens, he was asked, if there are no invaders, no tanks to be booby trapped, no sentries to be killed? He shrugged his shoulders, for that would be a kind of war outside his experience, but then he brightened and said: "They must fight our way. They cannot conquer China without mass invasion. If they do, we will return to our tunnels and defeat them as we defeated the Japanese and the Nationalists."

## U.S. Navy Is Testing Sea Lions As Retrievers of Lost Rockets

NORFOLK, Va., Dec. 8 (UPI).—The Navy is considering using sea lions as a substitute for divers to recover test weapons from the bottom of the ocean.

Phil Villa-Lobos, a spokesman for Norfolk's Little Creek amphibious base, said last week three sea lions from California had been used successfully to retrieve a $50,000 anti-submarine test rocket.

Navy divers can go to a depth of between 150 and 200 feet to retrieve rockets. Mr. Villa-Lobos said the sea lions are capable of going twice as deep. The animals are faster and less expensive than human divers, he said.

"Any time you can use an animal to do something a person would do and you're not putting a person's life in jeopardy, it's a good thing," he said.

Before the sea lions dive, a "grabber" device that looks like a pair of ice tongs is attached to them and a line is attached to the grabber.

The test rockets make a sharp noise when they hit bottom and the sound is picked up by Navy men on the surface who then send the animals underwater to find the rockets.

The animals place the grabber next to the rocket's fin, Mr. Villa-Lobos said, and it automatically snaps into place around the weapon. The sea lion then returns to the surface for a reward and the sailors haul up the rocket on the line.

## Quebec Leader Emphasizes His Separatist Views

OTTAWA, Dec. 8 (UPI).—Quebec Province's new Parti Québécois government, in its first official encounter with the federal government here, promised cooperation with the rest of Canada but emphasized its separatist philosophy.

"We're not out to destroy, but to construct," Quebec's minister of intergovernment affairs, Claude Morin, said in a speech Monday at the opening of the federal-provincial meeting of finance ministers.

"It would be dangerous to hold the illusion that nothing has changed in Quebec, and that one government has simply replaced another one," he said. "There has been a change in Quebec and the election confirmed it."

Mr. Morin said that although the provincial government was elected as a "separatist" party, the fact was that "there was a general dissatisfaction" with the earlier government, which had no significance to Canadian federalism.

He said that the Parti Québécois, which ousted the Liberal party in the November provincial election, looked forward to an "active and lively dialogue" during the finance ministers' two-day conference. Provincial finance ministers are seeking new fiscal arrangements with the federal government.

## Russia to Give Push To Tourist Industry

MILAN, Dec. 8 (UPI).—Soviet Tourism Minister Sergei Nikitin said that his country will spend $6 billion over the next 15 years to turn the Soviet Union into a prime tourist attraction.

Mr. Nikitin, here to meet his Italian counterpart, Dario Antoniozzi, said: "In the next 10 years, the Soviet Union will be in the forefront of international tourism." He announced a plan to build hotels, camping grounds, tourist villages and service stations.

## New Swiss President

BERN, Dec. 8 (Reuters).—The Swiss Parliament today elected Justice and Police Minister Kurt Furgler, 52, to be the Swiss President for 1977.

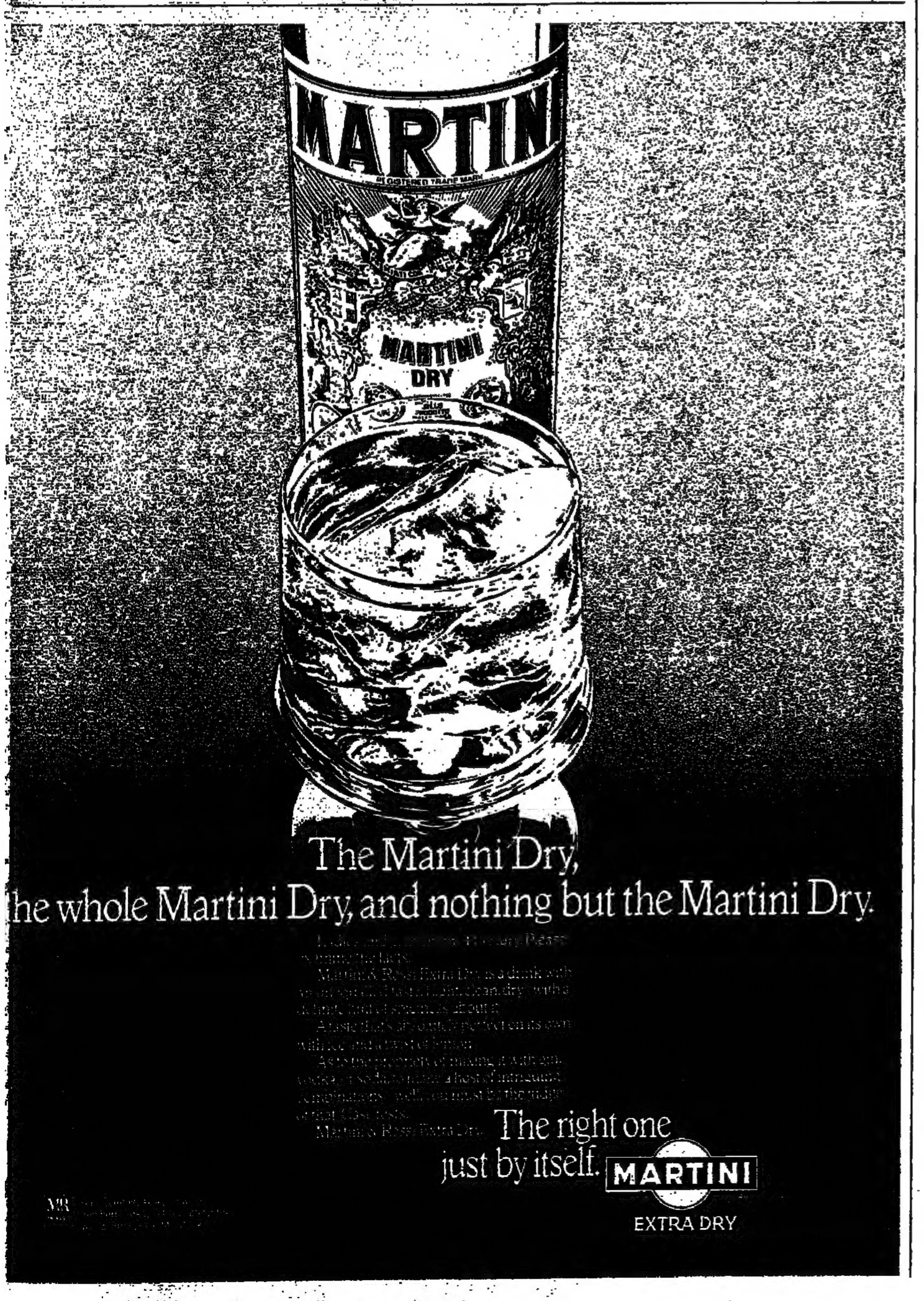
## African Republic Becomes Empire

N'DJAMENA, Chad, Dec. 8 (Reuters).—The Central African Republic has proclaimed itself an empire. Its radio hailed Salah Bokassa, who has been President since 1966, as its first Emperor. He was formerly known as Jean Bedel Bokassa.

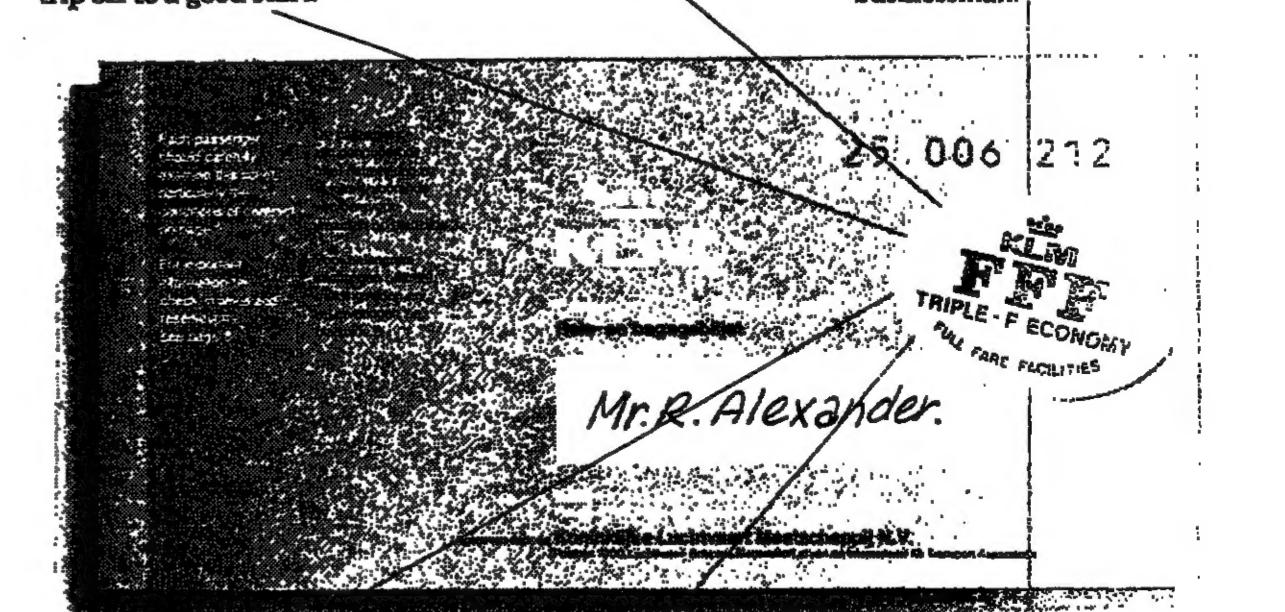
The broadcast on Saturday said the former French colony, which gained independence in 1960, would now be called the Central African Empire.

The change was embodied in a new Constitution, adopted by a special congress of the country's only political party, Mesan Renove (Movement for the Social Evolution of Black Africa), the radio added. It said: "Long live Bokassa the First, Central African Emperor."







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INTERNATIONAL
Herald Tribune
Published with The New York Times and The Washington Post
Page 6 — Thursday, December 9, 1976 *

# Japan Votes, Uneasily

The Japanese election puts one more country on the long list of those where the government is getting weaker as the economic choices get harder. The Liberal Democratic party, in office continuously since it was formed more than two decades ago, has now lost its parliamentary majority for the first time. Through the hasty expedient of signing up a handful of independents, it is managing to keep itself in power. But it has suffered a severe erosion of its authority and the government plans to resign.

The odd thing about the election is that, while the Liberal Democrats were clearly the losers, it is hard to see any winner. On the far left the Communists lost more than half of their seats. The Socialists, the second largest of Japan's parties, gained marginally —but they still have fewer than half as many seats as the Liberal Democrats. Though the Liberal Democrats' standing has been slowly diminishing for years, it continues to dominate Japanese politics in the face of a badly scattered and fragmented opposition.

* * *

Like all the others among the rich industrial nations, Japan now has to deal with urgent issues of foreign economic policy. In response to the recession and the strain of paying for its enormous oil imports, Japan has now mounted an astoundingly effective export drive. It is generating vast surpluses in its trade with both Europe and the United States. The European Common Market has already protested and begun to take counteraction. The United States is more tolerant of this imbalance, seeing in the influx of highly competitive Japanese goods a powerful force to restrain domestic inflation. But this country's imports from Japan have recently been running about $6 billion a year more than our exports to Japan—a disparity that no one considers to be sustainable over any prolonged period.

The basic reason for Japan's present emphasis on exports is simply that domestic demand there has still not recovered from the recession. But most of the other industrial countries have very similar troubles of their own, and they are not greatly inclined to help Japan at their own expense. Throughout Western European politics there is a general pattern of hairline majorities in some parliaments and minority governments in others. It is, you might say, the political expression of public indecision, leaving European governments, like Japan's, with no solid base for sustained leadership. In Europe as in Japan, there is now the unaccustomed prospect of high unemployment for the indefinite future.

One of the curiosities of postwar politics was the tacit decision of all three of the defeated nations to turn their public life over to the forces of the democratic right, which continued to rule serenely through election after election. The pattern of one-party democracy broke down first in West Germany. It turned to a vigorous two-party system, you might speculate, under the pressure of East German infantry on its border and Soviet tanks in Berlin. But in the other two countries—Italy behind its mountains, and Japan behind its seas—government continues to be carried on among the highly intricate factional alliances within one large and dominant conservative party.

For two countries of totally different cultures, the parallels between Italy and Japan are striking. The ruling parties in both countries have been losing strength because of the very processes of rapid economic growth that they fostered. Population in both has been flowing from the rural countryside to the cities; the shopkeepers are fewer, and the corporations are bigger.

* * *

Both Japan and Italy cherish consensus. The arithmetic of parliamentary seats means less there than in a country like, say, Britain, with an aggressively adversary tradition. As they are currently demonstrating, governments in both Japan and Italy can continue steadily in office despite election results that, elsewhere, would prove fatal. But, unhappily, there is still another similarity. While both of these governments were originally established under the aegis of the United States, both have now been poisoned and weakened by the Lockheed scandals—which also came to them from the United States.

Japan's Premier, Takeo Miki, is expected to resign as the result of Sunday's defeat. For the past year he has been working to expose and prosecute the Japanese principals in the Lockheed affair. The rest of the party's leaders have repeatedly attempted to remove him as a menace to unity. Now they will succeed, probably replacing him with his old rival, Takeo Fukuda. That will re-establish consensus. But it is not likely to give Japan a government whose strength is commensurate with the country's imposing economic power.

THE WASHINGTON POST.

# Energizing Energy Policy

There's a move afoot to shut down the Joint Committee on Atomic Energy. We hope, not without a tinge of regret, that it succeeds. In its early times this 30-year-old congressional panel performed worthily in guiding the nuclear-weapons program and fostering a private nuclear-power industry. It was sailing in an uncharted sea, and it did so with a sure and responsible hand at the tiller. Its fault was that it clung too long and hard to an almost missionary conception of the role of nuclear power. It did not keep up with rising anxieties about safety, wastes and proliferation or, indeed, with the new equations of energy "shortages". And it became autocratic in style.

Thus did the Joint Committee on Atomic Energy lose the deference that legislators commonly—too commonly—show for each other's failings. In the last few years, others in Congress have repeatedly scuttled the committee's bills and struggled against its obstruction of nuclear legislation originating anywhere else. A substantial majority now seems prepared to put out of its misery a committee that has been enfeebled by a slew of resignations, election defeats and other political accidents.

The Democratic Caucus is expected to parcel out the committee's jurisdiction among four other committees. The new Senate will soon consider a proposal to fold atomic energy into a new energy and natural resources committee. Both approaches are sound.

The Congress, however, has a great deal more to do in the way of reorganizing to improve its own policy-making capacity in nuclear affairs, not to speak of energy affairs as a whole. Some 18 other committees already have a piece of the nuclear-power action, for instance. The Senate may be headed toward the more comprehensive structure of an energy and natural resources panel. But the House, where no similar reorganization effort is evident, is taking the opposite tack: In handing over atomic energy's functions to four other committees, it would be dispersing responsibility for nuclear policy. This is what lends superficial appeal to a rear-guard action to give atomic energy a new and broader life as a joint energy committee. Given the proven flaws of this committee in particular and of the joint legislative committee as a species, this is a poor idea. But it is a response, if an inadequate one, to a widely perceived need for more efficient congressional policy-making in this field.

President-elect Carter has promised to make executive reorganization, starting with energy, his first domestic priority. Whether it's politically wise for him to feel he must make good at once on this particular campaign pledge may be debatable. More to the point here, however, is that he must relate his reorganization plans, tactically and substantively, to those of Congress. It's no easy task to organize either branch to deal with energy. But for either to proceed without due respect for the other can only make trouble. With both branches controlled by the same party, collaboration between the two should be possible. At the least, it should be tried.

In brief, it's not enough simply to write off the Joint Committee on Atomic Energy. Its prospective demise should be regarded as part of a process of energizing, if you will, the making of energy policy—a process that still has far to go.

THE WASHINGTON POST.

## International Opinion

### Opportunity for Vance

By nominating Cyrus Vance as secretary of state, Mr. Carter has signaled that American foreign policy is to undergo a change of style but not of fundamental substance. He has chosen a tough, able and experienced man from the East Coast Establishment, so that allies and adversaries can now be assured that Mr. Carter's own lack of experience in foreign affairs will be balanced by a steady hand at the State Department. Against this, Mr. Vance has around his neck the albatross of his long support for the Vietnam war . . . He also has the lesser disadvantage of being relatively unfamiliar with the Third World and its related economic problems, which are going to play a larger role in American foreign policy. Neither of these disadvantages need be too damaging. He is a sufficiently fair-minded man to have few firm enemies, and he is sufficiently able to adapt to the new and very different challenges he now faces . . .

*—From the Times (London).*

## In the International Edition

### Seventy-Five Years Ago

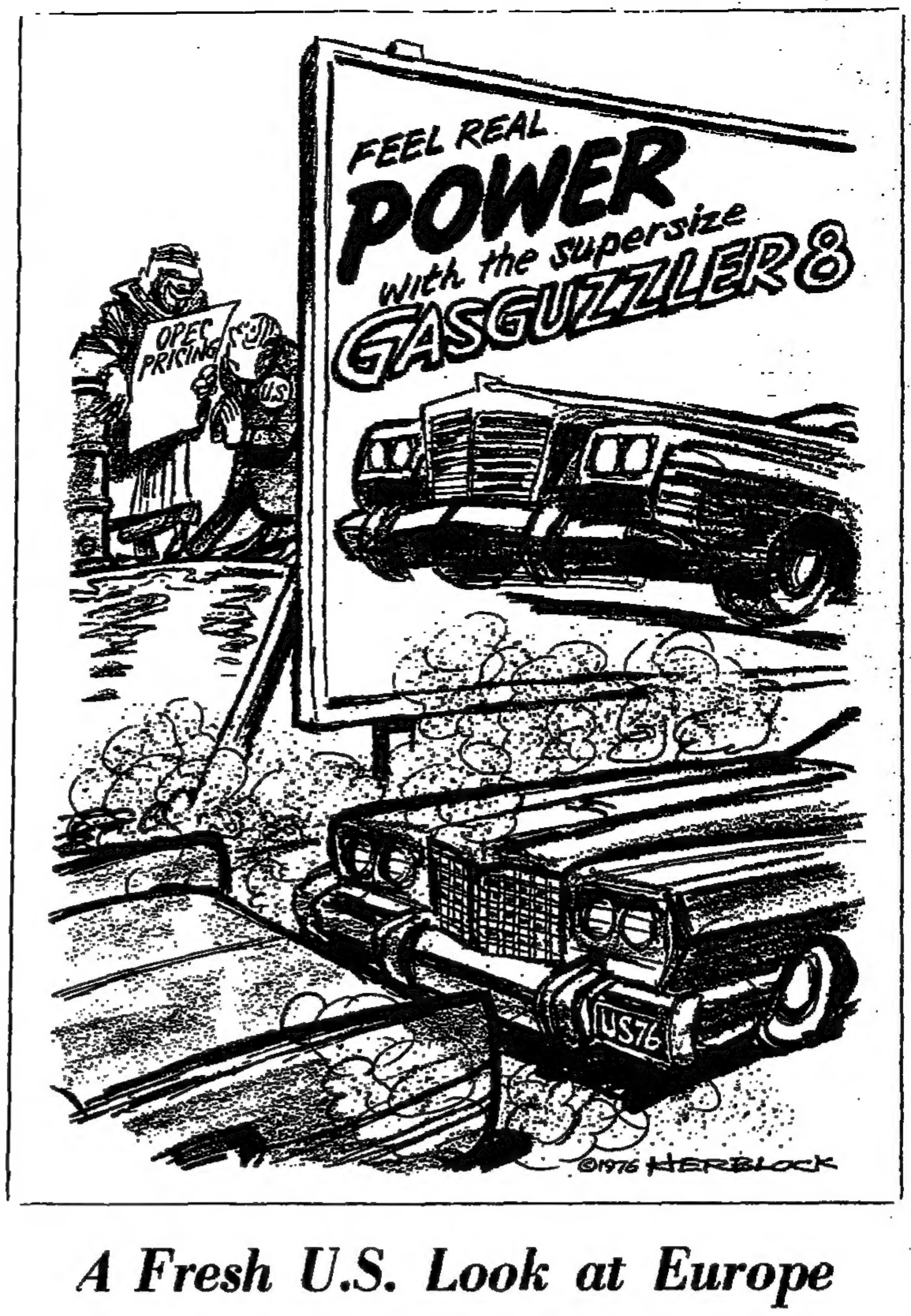
December 9, 1901.

BUENOS AIRES.—A dispatch from Santiago de Chile announces that the Chilean Secretary for Foreign Affairs and the Argentinian Minister have settled the pathways incident. It has also been resolved that the Chilean claims about the alleged invasion of the Ultima Esperanza shall be settled after the reception of a report on the matter. The danger of a conflict has therefore disappeared.

### Fifty Years Ago

December 9, 1926.

NEW YORK.—A second and more fruitful arms conference at Geneva was predicted by Rear Admiral Henry P. Jones USN, who returned recently on the United States liner George Washington. "At the conference just held," said Adm. Jones, "all the delegates put their cards on the table. The ground has been prepared for a final and more satisfactory conference. It will probably be held next year."




# A Fresh U.S. Look at Europe

By C. L. Sulzberger

BRUSSELS.—Jimmy Carter's designation of Cyrus Vance as the next U.S. secretary of state is taken as an excellent sign by Western Europe. Although it has been successively dazzled, amused and occasionally bewildered by Henry Kissinger's diplomatic brilliance, it has not always been thoroughly convinced of his benevolent intentions to the cause of European unity.

Indeed, he has on occasion confided to intimates a skepticism concerning Carter's assertions that the United States should promote European unity. Sometimes Kissinger doubts whether Washington could effectively do so, and other times he wonders whether it should.

Such ups and downs are explicable as tactical maneuvers rather than fundamental attitudes. Washington has apparently feared the possibility that such organizations as the European Program Group, which met this year in Rome to discuss cooperation of Europe's defense industries, might cooperate at the expense of U.S. interests.

### Known in Europe

Quite a few statesmen from the European Community already know Vance personally. He has spent some time in the general NATO area, as a Vietnam peace negotiator in Paris and as a Cyprus mediator between Greece and Turkey. He is well regarded as sympathetic to the Atlantic Alliance as well as the EEC.

The community is determined to strengthen its position as a world force while at the same time doing its utmost to work with the United States on the closest terms. Sir Christopher Soames, who retires next month as EEC commissioner for external relations (foreign minister for "Europe"), has this to say:

"Inevitably there was bound to be a certain schizophrenic line in Washington. The United States genuinely wanted to see West Europe get stronger and better organized, thereby more able to look after itself and share common burdens. Not only the military burden in NATO but supporting our general Western concept of a way of life.

"Therefore Washington essentially feels that a strong 'Europe' is good news. But this 'Europe's' interests cannot be the same as those of the United States except in the broad sweep of things. Differences on agriculture are an example of what hits one in the face when one gets to lesser fields."

Looking back on his four years in this job, Soames acknowledges that, thanks partly to world economic problems and the intermittent energy crisis, the EEC is still less "cohesive" than he would have wished. Yet he stresses its increasingly important influence. " 'Europe's 250 million people now run 20 per cent of the world's trade outside the EEC's own frontiers," he adds.

### Ties With Asia

China has recognized the EEC and accredited an ambassador. Soames hopes there will be an eventual Sino-European commercial accord. The community's trade is increasing with the Indian subcontinent, East and Southeast Asia, Africa and North America. "We have become a personality on the world scene," he claims.

"EEC has notably increased its stature during the past four years even if it is still far from achieving its fundamental goals. It did a great deal for Portugal during that country's post-dictatorship crisis. It is now eagerly wooed by Spain. It has been most helpful to Greece since democracy regained power there.

"It is gaining importance for Turkey and Yugoslavia, with which we have just signed an economic cooperation accord. Greece has applied for full membership, now being negotiated. Turkey has not yet made such application but we will have a new association agreement within three months."

### Testimonial

Perhaps the greatest testimonial to "Europe's" progress is in the stalemated proposal from Moscow's Comecon group of East European Communist nations that it should deal directly with the EEC as a bloc. The EEC refused because Comecon is dominated by the Soviet Union, its overwhelmingly No. 1 member. The EEC is in no sense dominated by the United States, which is not a member and with which it often has disagreements.

The European Community merely suggested to Comecon that if any of its members wanted commercial deals, they should feel free to do so bilaterally between each applicant and the EEC, thus avoiding Soviet attempts to put pressure on individual Comecon countries seeking to improve their own trade with the West.

The story of "Europe's" wavering but steady rise is undramatic and far from glamorous. But it exists. And the nine present members of the club, plus the list of those who hope to apply, all hope there will now be more clear-cut, steadfast U.S. support for this new body than has always been evident in the recent past.

## Letters

### Another 'Gap'?

In his article "Kremlin Expects an Initiative From Carter" (IHT, Nov. 25), Victor Zorza quite aptly recalls the "missile gap" between the Soviet Union and the United States inspired in the 1960s, and the negative consequences of "overcoming" it. I should like to add that still earlier—in 1956—the United States also "invented" the "bomber gap" which led to an accelerated program of building U.S. bombers. And this "gap," as the U.S. administration officially admitted later, did not exist either: the United States had at that time four to five times more bombers than the Soviet Union.

Now, as you listen to some Western politicians and military leaders, you have the impression that some people find it profitable to prove the existence of a "gap" in the armed forces and armaments in Europe in favor of the Soviet Union. In that way the new U.S. administration and its allies are being called to start another spiral in the arms race in Europe. It is easy to imagine that versions about such "gaps," even those that are later refuted by their own inventors, may only lead to a continuation of the "action-reaction cycle" in the armaments race.

VLADIMIR BRODETSKY.
Novosti Press Agency.
Moscow.

### Harness the Wind

When talking about energy (apart from oil), some people suggest the use of the sun (a very expensive device), but no attention is paid to the use of the wind. Wind is a powerful element for producing energy at the cheapest cost. When properly harnessed, it can reduce the consumption of oil, it could even contribute to a reduction in the price of oil.

VICTOR TUETA.
Geneva.

### Diplomatic Critic

As for the tax rises for Americans abroad:

Doesn't anyone question the virtually unlimited privileges of the U.S. diplomatic corps abroad?

Fellow taxpayers, that's our money they're thriving on.

SANDRA ROGERS MAKSUD.
Ferney-Voltaire, France.

# Harry Debelius From Madrid:

## After a new Cortes has been elected next year, close will Spain be to a Western European style democracy?

MADRID — With the Spanish referendum only days away, it is time to ask the question: After a new Cortes (parliament) has been elected next year, how close will Spain be to a Western European style of democracy?

The answer, barring some abrupt change, is: closer in spirit than in legal framework but moving in that direction.

The referendum next Wednesday will simply ask Spaniards if they approve the proposal for "democratic reform" which would give the country a two-chamber parliament elected by direct suffrage, to replace the current largely appointed Cortes which was bequeathed to Spain by the late Generalissimo Francisco Franco. It is a foregone conclusion that the vote will be overwhelmingly affirmative in spite of a boycott threat from the left and a "Vote No" campaign by the far right. But to make doubly sure, the government of Premier Adolfo Suarez is spending $10 million of the taxpayers' money on an advertising campaign telling them to vote "yes," just as Gen. Franco did in 1966 on the law of succession.

Approval of the referendum will not bring instant democracy. For one thing, the representational structure of the legislature to be elected is weighted in favor of conservatives and rural areas as opposed to heavily populated industrial centers. For another, the refusal so far of the Premier to recognize the Communist party before the elections presents a major obstacle for talks with leftist opposition parties.

### A Possibility

Putting those questions aside for the moment, consider the possibility that there might not even be a new post-election government. As the law stands, Premier Suarez is under no obligation to resign following the elections. His mandate is for five years. It is not inconceivable, if circumstances limit King Juan Carlos's choice of a premier, that Mr. Suarez might be asked to stay on.

In any case, the King alone cannot appoint a premier. He must pick from a list of three candidates drawn up by the powerful Council of the Realm. It is theoretically possible for the Council to keep the name of the parliamentary majority leader off the short list.

Nevertheless, it is probable that the Council will be in the King's pocket. The reason is that the composition of the Council must be changed when the parliamentary structure is changed. Where, for example, as the Organic Law states, could one find "the highest ranking prelate, with the most seniority, among those who are memb[...] Cortes"?

The proposed comp[...] the new Council of [...] includes an equal [...] members elected from [...] and from the congre[...] respective chambers [...] will name the preside[...] Cortes (the overall lea[...] chambers) and the [...] the Council of the R[...] addition, one-fifth of [...] bers of the Senate w[...] pointed by the King [...] likely that the King's [...] dominate the Counci[...] Realm.

### Into High G[...]

It is widely anticip[...] the succinct wording o[...] erendum, asking the [...] approve "democratic re[...] be used by the governm[...] pretext to shift into [...] in making changes on[...] "Si" votes have been [...] One of the first things [...] ernment is expected to [...] eliminate the require[...] political parties to reg[...] seek government appro[...] being allowed to part[...] elections.

The Suarez governm[...] deliberately postponed t[...] important municipal [...] previously expected to t[...] last month. The chances [...] Mr. Suarez put them off [...] because he had his h[...] but also because they [...] widely sneered at as [...] virtually every party to [...] of the center remains il[...] hence ineligible to pre[...] didates.

When those elections [...] place, nobody knows.

### Electing Gover[...]

As for electing g[...] governors, Spain's lead[...] just not got around to [...] The powerful govern[...] still appointed by the [...] government, and the pre[...] may remain in office—w[...] sible prejudice to the [...] of the parliamentary el[...] until after the new pa[...] comes in. Still, it is kno[...] changes in the law in th[...] are high on the priorit[...] the King's present gov[...]

Evolution is undeniably [...] tedious process than re[...] but it is also more pr[...] any case—given the as[...] that the King wants a de[...] Spain—it is clear that h[...] choice but to accept the [...] system as one which wa[...] constituted. If he had ch[...] the origins and legality [...] system, as the oppositi[...] he would have placed t[...] the presence and legality [...] monarchy itself. After a[...] Franco overthrew a repu[...] a kingdom.

# Getting a Handle on the Mide[...]

By Joseph Kraft

WASHINGTON—A push, not to say rush, is under way in all quarters for a new go at settlement in the Near East. But the incoming administration needs to sort out possibilities and analyze proposals.

The best way to buy the time is not the usual device of sending abroad a prestigious emissary. A far better way to get a handle on the Near East is to bring here to Washington, for separate meetings with Mr. Carter and his aides, the leaders of Israel and the three neighboring Arab states.

The most visible mover behind the new momentum for settlement is President Anwar Sadat of Egypt. No U.S. senator, congressman or journalist has been to Cairo recently without getting an earful of Mr. Sadat's eagerness to resume peace negotiations through a Geneva conference. Nor does the Egyptian President mince words about his readiness to "end the state of war" in return for Israeli concessions of occupied territory to Egypt, other Arab states and the Palestinians.

### View of Assad

President Hafez Assad of Syria, once a prime obstacle to further peace moves, has now changed his position. In return for Egyptian approval of Syria's virtual occupation of Lebanon, he is no longer opposing Mr. Sadat's initiative for peace. As he put it to me in a rare interview last week: "I am not saying the time is not right for settlement."

King Hussein of Jordan, Israel's third Arab neighbor, has favored talks at all times. With neither Egypt nor Syria now barring the way, he can be more forthcoming than ever in expressing his interest in a settlement.

Perhaps the biggest change has been in Israel. After a brief spell of sour comment on the Egyptian initiatives, Premier Yitzhak Rabin has gone onto the peace offensive himself. While some believe he has turned about only for propaganda reasons, my strong impression is that the play of internal politics preceding the election due next year forces him to come out as a leader who can bring the settlement most Israelis want.

Whatever the sincerity of these various professions of interest in settlement, no one in his right mind would want to let the opportunity slip away untested. The United States in particular, as the power all countries in the area now look to for diplomatic leadership, has a special interest in maintaining momentum toward settlement.

The temptation is to follow the precedent set by William Scranton for President Nixon in 1968 of exploring possibilities through the agency of a high-ranking traveling emissary. But a visiting dignitary is bound to raise false hopes either among Israelis or Arabs. Moreover, after the mission, it becomes incumbent upon the United States to come forward with proposals. The monkey is on Washington's back.

But the Carter administration, unless it wants to spoil the present opportunity, ought to leave the initiative for new proposals with the local parties for some time to come. There is a great deal of ambiguity in what is now being said, and there ought not to be a U.S. response until after the new President and his chief aides have had a chance to probe exactly what the local leaders have in mind.

Mr. Sadat, for example, is cloudy to the point [...] deceptive in his talk of [...] to the state of war." [...] Assad is a quantity al[...] known to all Americans [...] Secretary of State Hen[...] singer; indeed, Mr. Ass[...] a joking reference to th[...] dition by observing to [...] he was the "only Arab lea[...] spoke English with a Ocita[...] cent."

Though King Hussein [...] Rabin are well known in [...] ington, both ought to be [...] tioned closely on specific [...] It is unclear to what deg[...] King could act as a co[...] bringing Palestinian repr[...] tives to the negotiating tab[...] also what relation Jordan [...] have with a Palestinian st[...] is equally unclear how much [...] for political maneuver Mr. [...] has—particularly on [...] territories—with an electio[...] ing up.

By inviting all four lead[...] Washington for separate [...] ings at an early date, Pr[...] Carter keeps up the mom[...] for settlement. He reser[...] himself and his aides the [...] sibility of discovering first [...] the true postures of leaders [...] for internal political reasons [...] to mask their views. At the [...] time he keeps what the [...] States most needs before [...] forward with proposals—an [...] mind.

# Kadar Says Eurocommunism Is Not a New Anti-Sovietism

By Paul Hofmann

VIENNA, Dec. 8 (NYT).—Hungarian Communist leader Janos Kadar said yesterday that he did not share the view that Eurocommunism was a new form of anti-Sovietism.

Mr. Kadar, reputed to be the most popular Communist party chief in Eastern Europe, made what sounded like a cautious opening to liberal currents in the Communist movements of Italy, France and Spain during a news conference here.

The 64-year-old leader, who came to power when Soviet forces crushed the uprising in his country 20 years ago, is not known to have ever publicly answered the questions of reporters in a Western country before.

Mr. Kadar's hourlong news conference at the Hungarian Embassy came before the end of a two-day official visit to Austria.

### Autonomist Tendencies

The question about Eurocommunism was asked by an Italian newsman who referred to a recent magazine article by Todor Zhivkov, Bulgaria's Communist party chief, denouncing the autonomist tendencies in various Communist parties in southern and Western Europe as hostile to Moscow.

Mr. Kadar's reply was brief: "I don't share this view."

An Austrian journalist wanted to know why Soviet troops were still stationed in Hungary even though the country was not threatened by any of its neighbors.

Mr. Kadar said that the presence of Soviet forces in his country depended on "the general situation of world politics," and he expressed the hope that all foreign troops stationed in various European nations may eventually be withdrawn by common accord.

Questioned about possible cooperation between Communist and Socialist or Social Democratic parties, Mr. Kadar observed that their relationship was "no simple one," but that contacts were useful and that "the interests of peoples" must be put above party interests.

The Hungarian leader pointed to the "good atmosphere" of his talks with Bruno Kreisky, the Socialist Premier of Austria, as an example of ideological coexistence.

### Broader Results

Repeatedly, Mr. Kadar praised the results of least year's East-West conference on security and cooperation in Europe at Helsinki and said that the results must be broadened. The Helsinki parley, he said, was not "an end but a beginning."

The Hungarian leader confirmed that he planned to make a trip to West Germany next year. He said that it was true that his present stay in Vienna was his first official visit to a capitalist country, but that he did not entirely lack first-hand knowledge of the capitalist world.

Mr. Kadar recalled that he visited United Nations headquarters in 1960 and with a smile added: "New York, I regret to say, is not a Socialist metropolis."

The Hungarian leader said that his countrymen were free to travel to Western countries and added that many did. This was a form of political education, Mr. Kadar observed. In the advanced capitalist countries "the fences are not made of sausages" and unemployment and other insecurity were widespread, Mr. Kadar remarked.

### Kadar Leaves Vienna

VIENNA, Dec. 8 (AP).—Mr. Kadar left here this morning. He was seen off by Chancellor Kreisky.

Janos Kadar

# Andreotti Gets Assurances U.S. Will Try to Help Italy

WASHINGTON, Dec. 8 (AP).—Italian Premier Giulio Andreotti is returning home with the Ford administration's promise to do what it can to ease Italy's economic problems. His two-day official visit ended here today.

After a meeting with Mr. Andreotti, Treasury Secretary William Simon said yesterday that the United States would explore ways to provide "tangible" support for Italy's austerity program.

Mr. Simon's statement gave no details, but other officials said U.S. assistance would probably take the form of an emergency fund from which Italy would be authorized to make withdrawals in the event of a currency crisis.

### Curbing Speculation

A top U.S. official said the mere existence of the proposed fund would inhibit speculation against the lira.

Mr. Andreotti's visit, which included talks with representatives of both President Ford and President-elect Jimmy Carter, occurred during a crucial period for Italy's five-month-old Christian Democratic government.

Rome is awaiting decisions by the International Monetary Fund on a reported $1-billion loan application and by the oil producers' cartel on a price increase. Italy is among the Western industrialized countries least able to afford a new price increase.

Also pending are labor-management wage talks, which will have a direct bearing on whether Italy will be able to bring down its high inflation rate.

Officials said the U.S. attitude on creation of an emergency fund would be influenced by the IMF decision. In his statement, Mr. Simon suggested that a favorable decision was forthcoming when he said he looked forward to the completion of successful negotiations on the Italian loan bid.



# New Gonorrhea Strain Gains; Type Is Resistant to Penicillin

By Bernard Wideman

MANILA, Dec. 9 (WP).—A new strain of penicillin-resistant gonorrhea is frightening military health officers at the two large U.S. military installations in the Philippines.

The incidence rate for the new strain of VD has been rising among the 15,000 GIs at Clark Air Base, 50 miles north of here, and Subic Bay Naval Base, 60 miles northwest of here, according to an Air Force doctor at Clark.

Six months ago there were no known cases of the new strain, the doctor said, but in the three months from August to October 410 GIs from the two bases contracted it. This is about 15 per cent of all gonorrhea cases reported on the two bases during that period. November figures have not been compiled yet.

Although the new strain, called "beta-lactamase-producer" by the World Health Organization, can be cured by a semisynthetic called trobicin (spectinomycin), both the identification and the treatment of the new strain are costly.

Common gonorrhea can be identified through a smear test, while the new strain requires culturing for identification; penicillin treatment per case for common gonorrhea costs the U.S. government 50 cents, while trobicin treatment costs $3.50.

The new strain first showed up in the United States in April, when a GI who had left Clark a week before was discovered with the disease.

[Dr. Paul Weisner, at the Center for Disease Control in Atlanta, said cases also have been found in New Zealand, Australia, Japan, Korea, Hong Kong, Singapore, Norway, Britain, the United States and Canada. He said it was not possible to estimate the total number of cases in the world. There have been 38 confirmed cases in the United States and more than 70 cases in Liverpool, England, he added.]

In August, the Center for Disease Control, which works with WHO, sent a team here with Philippine government permission. The team tested prostitutes in Olongapo, outside Subic Naval Base; Angeles, outside Clark, and Manila.

Of 2,500 prostitutes checked, about 250 tested positive for gonorrhea, 28 per cent of them the new strain.

Of the 5,000 registered prostitutes in Angeles, only 1,800 receive weekly checkups, according to the city health officer, who said he had no idea how many may have the penicillin-resistant strain of VD because his clinic is not equipped to do cultures. Angeles Mayor Rafael Lazatin bridled at the idea that the new strain is prevalent in his area, saying: "So far there are no cases among the girls here."

# Rhodes Re-Elect Minority Leader

WASHINGTON, Dec. 8 (AP).—Rep. John Rhodes of Arizona won unanimous re-election today as the House minority leader.

Rep. Rhodes was first elected to the leadership post on Dec. 6, 1973, to succeed Gerald Ford when Mr. Ford became Vice-President.

Republicans at a caucus also unanimously re-elected Reps. Robert Michel of Illinois as minority whip and John Anderson of Illinois as caucus chairman

# Thai Guerrillas Kill Policeman, Wound 14

BANGKOK, Dec. 8 (UPI).—Communist guerrillas attacked a police camp 72 miles east of Bangkok with rockets and rifles before dawn yesterday, killing a corporal and wounding 14 other policemen, the Interior Ministry reported today.

It was the closest the Communists have come to Bangkok during the rise in insurgency that began two months ago.



# Shah Orders Pardons For 282 Prisoners

TEHRAN, Dec. 8 (UPI).—Two-hundred and eighty-two prisoners sentenced by military tribunals have been pardoned on orders of Shah Mohammed Reza Pahlevi, the Iranian armed forces commander announced.

The pardons were the latest in a series during the year to mark the golden jubilee of the Pahlevi Dynasty founded by the present Shah's father. The announcement said that the prisoners will be released Thursday.

# Ethiopia Frees 109

MOSCOW, Dec. 8 (UPI).—Ethiopian authorities have released 109 persons under an amnesty announced by the provisional military government, Tass said in a dispatch from Addis Ababa.

# U.S. Will Protect New Fishing Zone

SANTA CRUZ DE TENERIFE, Canary Islands, Dec. 8 (AP).—When the United States expands its offshore exclusive-fishing zone to 200 miles next March 1, it will immediately begin to enforce rigidly all rules on fishing within that zone, a State Department official said here today.

Nicholas Schowengardt, of the Office of Fisheries Affairs, said that one reason for the crackdown is that "a voluntary international scheme is not capable of insuring regulations."

He said at a meeting of the International Commission for the Northwest Atlantic Fisheries that, in addition to inspecting foreign fishing vessels for possible violations of commission rules on conservation measures, including catch quotas and mesh sizes, the U.S. authorities will also make arrests for violations. The commission members now only report violations to fishermen's home countries, without arresting the fishermen.

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### Backers as Well as Foes Aroused

# ...riticism of Chile's Junta Mounts

...y Jonathan Kandell

...TIAGO, Dec. 8 (NYT).— ...is mired in industrial stag... and runaway inflation, ... began in the period of ...ent Salvador Allende and ...ues under the dictatorship ...sident Augusto Pinochet.

... economy has not regained ...oduction levels of the late ... and living standards for ... of the 10 million Chileans ...ue to drop. Behind ... of tranquillity and order, ...uffering and despair run ...

...n the military government ...ower in Chile, it sought to ... the role of the state in ...onomy and introduce lais...ire capitalism, which has ...isted here for generations.

...y, three years after the ... that toppled Mr. Allende, ...xist, the military junta is ... fire from both its sup... and opponents. And ... are being raised even ... conservative businessmen ...he state must intervene to ...he economy.

...y other store seems to be ...ising a fire sale, and still ...ustomers walk past the window displays. Well-dressed men commute to work on rickety buses that used to transport only laborers and clerks.

In the shantytowns where one-fourth of greater Santiago's 3.5 million people live, women and their unemployed husbands elbow into church-sponsored soup lines that were meant for children.

In the Allende years, state ownership was the yardstick for economic activity. The redistribution of wealth—through price controls and wage increases, disorderly agrarian reform, worker take-overs of factories, and ambitious social welfare programs without financial backing—was carried out even as the production of wealth fell.

**Still No Compromise**

Under the military, the ideological pendulum has swung almost 180 degrees and there is still no compromise. A full-scale effort has been under way to reduce the state's economic role as investor, creditor, employer, producer and protector. The ideologues at the economic helm insist that no matter what the immediate consequences the economy must be quickly turned over to market forces dominated by supply and demand, private investment and free competition.

But labor leaders, facing huge unemployment and malnutrition among their rank and file, are pleading with the government to resume public investment and decree wage increases. Farmers, whose grain yields have plummeted, are demanding government subsidies for machinery, fertilizers and pesticides.

An even more dramatic turnabout has occurred in the thinking of many industrialists and businessmen who initially shared the military government's ideological fervor for fiscal conservatism.

Faced with tight credit, low consumer demand, competitive imported goods and a growing number of bankruptcies, the leaders of the business community are asking the government to restore some of the maligned practices of the Allende era, including price controls, public investment and deficit spending, low-interest government loans and protective barriers against foreign products.

**Discontent Acknowledged**

Ranking government officials acknowledge the depth of discontent, but maintain that there will be no retreat from the austere economic plan followed since the 1973 coup.

According to Pablo Baraona, the president of the central bank and a leading economic adviser to the government, the fact that "more than 80 per cent of the people are against our policies is proof that the model is working, that it has affected everybody and that it has privileged nobody."

According to Gen. Pinochet and his economic advisers, the worst is over. Inflation has been brought down to 180 per cent from the 700 per cent annual rate registered at the end of the Allende period. For the first time in years, the country showed a surplus in its balance of payments and has succeeded, beyond anybody's expectations, in reducing the net level of its foreign debt, which still is an extremely high $4.5 billion.

**Reality Cited**

"It may well be that to many of our countrymen this feat may appear somewhat removed and its benefit not reflected in their daily lives, Gen. Pinochet said on the third anniversary of the coup that brought him to power. "Reality is quite different, however. If the balance of payments had not been successfully controlled, Chile would have been required to face the impossibility of continuing to import the most essential products and this would have led to general rationing and far greater sufferings than we have endured."

According to the government, unemployment now stands at about 15 per cent, or 450,000 out of a labor force of about 3 million people. An additional 200,000 are employed in the government's emergency work program, which pays them less than the minimum wage of about $45 a month.

A church-sponsored study showed that in 1969 a worker making the minimum wage could buy the items on a list of essential foodstuffs with slightly more than half his income, and spend the rest to cover other basic needs. Today, even spending his entire wages a worker can cover only 80 per cent of the items.

Those working-class families who receive the minimum wage must get by with a basically meatless diet. Among the unemployed, however, malnutrition has reached alarming levels.

UPI

**Augusto Pinochet**

**6 Prisoners Freed**

SANTIAGO, Dec. 8 (AP).—The military government released six political prisoners yesterday, sending them into exile because of "their special danger to state security." They left on a commercial jetliner for Europe. The 6 were among 18 persons under detention without charges.

# ...odesians Claim Confidence ... Loyalty of Blacks in Army

By Jack Foisie

...ISBURY, Rhodesia, Dec. 8 ...ders of the white-minority ...esian government, declaring ... they have no worry about ...yalty of blacks in the armed ..., are planning to increase ... number.

...cks already comprise about ...hirds of the regulars in the ...d forces and police, pitted ...st black nationalist guer... Rhodesia has about 10,000 ...s and whites under arms, ...ed by reservists who are ...ly whites serving on a part... basis.

...til now all the blacks have ... enlisted men. Recently, the ... and the paramilitary police, ...parate announcements, said ... would soon commission their ... black officers.

...e insurgent war that seeks a ...over by force is slowly ...lerating in almost all sectors. ...rnment forces face guerrilla ...-border strikes from the sur...ding black countries—Mo...bique, Zambia and Botswana.

... recent interviews with 31 ...-troopers of a field police ... just back from the front, ...men displayed good humor, ...g they were looking for... to their pay in cash, a unit ...party and then home to ...families for 10 days.

...ir white commander, Hans Hoffman, urged them to be forthcoming in response to questions. But from private to sergeant major, they answered in monosyllables when asked about their feelings on fighting for whites against fellow blacks.

A concise but clear answer came from a corporal. Recently married, he said that what he sought most for himself and his pregnant wife was that there "be no trouble anymore."

"The people we are fighting are causing trouble. I want the trouble to end."

Did he look forward to a black government in Rhodesia?

"Yes," he answered warily. "But only if there is no trouble afterward."

White officers claim they have no fears of anything like "an Indian mutiny" occurring among black troops, referring to the native troop uprising against their British officers in India in the mid-19th century.

A black soldier's pay is better than what he might earn in civilian life. A black private even earns a little more than a white conscript. All Rhodesian whites from age 17 to 25 are required to serve at least 18 months. All black soldiers are volunteers.

© *Los Angeles Times.*

### Identifying Heavy Drinkers

# Blood Test for Alcoholism to Aid Therapy

By Lawrence K. Altman

NEW YORK, Dec. 8 (NYT).—The first specific blood test to detect chronic alcoholism has been developed by a team of researchers here as an unexpected dividend from their alcohol experiments on baboons. The test offers the potential of more precise and improved therapy for the millions who suffer from alcoholism, a major public health problem, the researchers reported in a scientific journal.

Because the substances measured in the test persist in abnormal amounts after alcohol disappears from the blood, the researchers from the Bronx Veterans Administration Hospital and the Mount Sinai School of Medicine found that the new test could detect alcoholism even after heavy drinkers stopped drinking.

The test involves taking a blood sample from a patient and then calculating the ratio of two amino acids called alpha amino-n-butyric acid and leucine in the plasma fraction of the blood. Amino acids are the building blocks of proteins.

**Unrelated to Nutrition**

For unknown reasons, this plasma fraction was found to be more than twice as high in alcoholics than in nonalcoholics. The studies were done on hospitalized and ambulatory alcoholic patients and healthy nonalcoholic volunteers. The abnormality was unrelated to the patients' nutritional status, because it was found in both well and poorly nourished alcoholics, the researchers—Dr. Spencer Shaw, Dr. Barry Stimmel and Dr. Charles Lieber—reported in the current issue of Science.

The test can be done in any laboratory that has spent up to $50,000 for an amino-acid analyzer, and the researchers are using the test to evaluate various treatments in industrial and rehabilitation clinics for alcoholism.

But Dr. Lieber said in an interview that he considered the test experimental and not available for routine use until independent teams of researchers had verified the results according to the custom in scientific research.

Dr. Frank Seixas, the medical director of the National Council on Alcoholism, said in a separate interview that he considered the new test "a brilliant discovery" and "of tremendous significance" in the field of alcoholism research.

**Further Questions**

The researchers have determined that the test results reflect prolonged rather than short-term intake of alcohol, that the test remains positive more than a week after the long-term drinking period ends and that it tends to become negative as the alcoholic begins abstinence.

Among the questions that Dr. Lieber's team hopes to answer eventually are the following:

- Who is at risk of becoming an alcoholic?
- Can heavy drinkers in the community be identified?
- Having identified heavy drinkers, can those particularly at risk of developing such severe complications as cirrhosis be singled out before damage results?

## Coca-Cola Tells SEC of $600,000 In Dubious Fees

ATLANTA, Dec. 8 (AP).—The Coca-Cola Co. made about $600,000 in "questionable foreign payments" from 1971 through last year, a company spokesman confirmed this week.

The firm said that amount included the $300,000 it had admitted to in October.

The larger amount was revealed in papers filed with the Securities and Exchange Commission Friday. The papers involved a proposed merger between Coca-Cola and the Taylor Wine Co.

There "have been indications that one or more past or present members of the company's executive management possess of knowledge of certain of the questionable payments," it said. the officials were not identified.

The company said it is continuing its investigation of the payments, and that "no assurance can be given that additional questionable payments will not be discovered. The extent to which any member of executive management had knowledge of or participated in making questionable payments can not be determined conclusively until the investigation is completed."

## Grenada Majority Cut

ST. GEORGE'S, Grenada, Dec. 8 (Reuters).—Prime Minister Eric Gairy and his Grenada United Labor party were returned to power yesterday but with a parliamentary majority cut sharply from 13 to 3.

## PARIS MOVIES

# Yves Montand: Too Nice To Be a Good Con Man

By Thomas Quinn Curtiss

PARIS, Dec. 8 (IHT).—Yves Montand is not at his best in his new film, "Le Grand Escogriffe" (at the Ambassade, Berlitz and Quartier Latin) He plays a con man who is simply too nice to be successful. His bungling is such that his sidekick (Claude Brasseur, a stooge of limited comic resources) goes straight in despair. This lighthearted premise might conceivably provide a mildly amusing rogues' comedy, something on the Damon Runyon order, but "Le Grand Escogriffe," like its protagonist, gets nowhere, lacking the necessary touch of whimsy to rise from the routine.

The ugly subjects of kidnapping and emphysema resist attempts at comic treatment by Michel Audiard, usually an adroit scenarist, who had the thankless task of turning a novel known as "Snatch" into a screenplay. Valentina Cortese is fleetingly seen as a flirtatious widow while Agostina Belli, the heroine of the hilarious "Carrière d'une Femme de Chambre," is ornamental. But the versatile Montand requires—as Chevalier did—a Lubitsch or a Mamoulian to reproduce his stage self before the cameras.

Jacques-Yves Cousteau is a documentary filmmaker unequaled in his field since the death of Robert Flaherty. With his "Monde du Silence," a work of extraordinary beauty and fascination revealing the secrets of the Red Sea, he took his place among the foremost French directors and followed his initial full-length feature with another underwater exploration, "Le Monde Sans Soleil."

Since then he and his crew have been on an Antarctic expedition aboard his ship, the Calypso, and have returned with a third film of inestimable value. Its title is "Le Voyage au Bout du Monde" and it is at the Ermitage, Rex, Odéon, Miramar and Cluny-Ecoles. A stimulating vacation from the porn, semi-porn and gangster violence products, it is recommended to all.

In the film, the viewer glides amid towering, threatening icebergs and weathers lashing blizzards. There is both excitement and variety to this instructive journey, and Cousteau is a charming as well as an informative host. He has remarkable modesty and humor in discussing his work and his respect and affection for all creatures—he even insists that the octopus has been maligned by romantic novelists—is most winning. He introduces the audience to friendly walrusses, playful seals and prankish penguins, the white-breasted black birds "flying" beneath the freezing waters to discover what the explorers in bathyspheres are investigating. Here is a thrilling cinematic trip to the Antarctic.

In "La Première Fois" (at the Biarritz, the Marignan and the Clichy-Pathé), Claude Berri—as his title suggests—depicts an adolescent boy's introduction to sex.

Berri's boy doesn't know what every young boy should know. His schoolmates are scarcely better informed, though they offer much unsolicited advice. What to do? One girl will not go beyond the exchange of kisses. Another, a seemingly acquiescent companion, refuses at the last moment, alarmed by his inexperience. Thwarted, he seeks professional counsel and a prostitute initiates him into the mysteries of sex.

There are a few funny passages, some vulgar strokes and hesitant progress to Berri's new comedy. Alain Cohen, who made his debut as a child actor some years ago in "Le Vieil Homme et l'Enfant", is now in early manhood and portrays the teen-aged Parisian.

At first "Mr. St. Ives" (at the Elysées Cinéma and at Cluny-Ecoles in English) gives you the impression that the ghost of Raymond Chandler is peeking over the shoulder of its author, then the impression is that its author is peeking over the shoulder of Chandler's ghost.

Once more we have the tough, fearless Los Angeles private eye who lives content in bachelor squalor and is indifferent to wealth, the danger of his missions being sufficient reward. Once more he is summoned to a stately mansion inhabited by an eerie old millionaire and an enigmatic beauty. Once more he agrees to risk his skin. Once more he escapes brutal attacks and bullets and solves the mysteries. Everything is there except the Chandler fillip.

Charles Bronson is the bold investigator, Jacqueline Bisset is the shady lady, Maximilian Schell is a mad psychiatrist and John Houseman is the eccentric Midas who looks at old movies for relaxion between nefarious international deals.

Yves Montand, Claude Brasseur in "Le Grand Escogriffe."

## LA SCALA

# 'Otello' With a Newly Minted So

By William Weaver

MILAN, Dec. 8 (IHT).—The absolute protagonist of the opening of La Scala last night was the conductor, Carlos Kleiber. This artist had already enjoyed a huge success here last season with "Der Rosenkavalier;" now that success has been sealed with "Otello," which triumphed in the house where it had its premiere (in 1887), and where it has been heard under such masters as Toscanini, Serafi, De Sabata.

The Scala orchestra can never have sounded any better than it did last night, as Kleiber made each bar, each phrase glow, shaping scenes and acts—and the whole opera—with architectural mastery. Alberto Zedda's revision of the score no doubt contributed to the clarity of this reading, but the conductor's freshness of approach was chiefly responsible for making the work sound newly minted.

### The Strings

The strings sang and soared, the winds—in the many solo passages as in the opening duet and the final scene—played with unusual, sinuous sweetness.

The singers, too, were exceptionally involved in the drama. Mirella Freni, a gentle, girlish Desdemona, was particularly moving in the last act, as she moved from the "Willow Song" through her prayer with a wealth of nuance.

After a rather generic performance in the first act, Placido Domingo—not perhaps a natural choice as Otello—clarified his portrayal of the Moor: A noble, elegant, commanding figure, vocally more at home in the more tender, more meditative scenes than in the moments of overriding authority, but always impressive and convincing.

If Domingo is not a born Otello, Piero Cappuccilli is surely a born Iago. Last night there was an occasional roughness in the voice, but—except for some annoying histrionic laughter at the end of Act III—Italy's outstanding baritone acted with unsuspected power: a bluff, agile, alert villain. The smaller roles were strongly cast, the Cassio of Giuliano Ciannella deserving special praise.

The first act of Franco Zeffirelli's production was confusingly busy: The drama took place among boys sh ropes, men carrying perilously high ladde ing children and sip the action was more focused and the hand the tasteful costume relli's handiwork—are cogent. The massive the third act was handled.

## OPERA

# Royal Opera Measures With New 'Ariadne auf Na

By Henry Pleasants

LONDON, Dec. 8 (IHT).—It's an old saying in the world of opera that a company's strength is properly measured not by its stars who—especially in this jet age—come and go, but by its resources in the casting of secondary roles.

The Royal Opera's new production of Richard Strauss's "Ariadne auf Naxos," by John Copley with designs by Philip Prowse, introduced at Covent Garden Monday night, is a case in point. It was not the performances of Yvonne Minton as the composer, Heather Harper as Ariadne, Ruth Welting as Zerbinetta or Peter Lindroos as Bacchus that linger in the memory, good enough as they all were, but rather Paul Hansard's majordomo, Sir Geraint Evans's music master, John Fryatt's dancing master, Francis Egerton's Brighella and Thomas Allen's Harlequin.

The excellence of all these in character parts, especially in the prologue, tended to make a conspicuously unbalanced evening out of what is in any case a conspicuously unbalanced opera. After the excitement of seeing and hearing Peter Hansard stealing scenes accomplished a scene t Geraint, the lament Ariadne in the oper despite the mellifluou Heather Harper's lov the antics of the ha and Ruth Welting's virtuosity—seemed tedio

Balance will probabl proved as the lead sin into their parts, notabl Minton, whose handsom pealing composer needs additional intensity come with assurance rich promise into reali Welting is inhibited by of her person and l contributing to a dollacterization closer to H Olympia than to Strau binetta.

Copley's production is tional but effective, pa in the prologue, and trance of all the charac ing the overture is and adroit. Edo de Wa ducted with exemplary and clarity, and the responded with instrume sic-making that delighted the ear.

## AROUND THE EUROPEAN GALLERIES

### Rome

**Cy Twombly.** Sperone, 21 Via Quattro Fontane, Rome, until Dec. 18.

Twombly is at his height. These "paintings," all done last summer, are pale, understated wild picture sequences.

"Leda and the Swan" is the essence of a swan rearing, in three versions. "Narcissus" is the word, half wiped away, on the first sheet, a blue cloud of soaring marks on the second, yellowing splashes on the third, a scribbled-over flower print on the fourth. "Thyrsis's Lament for Daphnis" is the poem scrawled in thorny high letters in the middle, flanked by two sheets covered with swoops of thick black.

The show is like an archaic frieze. Scratched sentences from Theocrytus's bucolic poems, from Spenser's "Garden of Adonis" are used as armature, figuratively and symbolically. But whether a work is about ancient shepherds or modern longing, lush or sparse, home., or elegant, violent or sweet, the sting of these lyrical images is in the dizzying balance of opposing qualities.

Twombly's signs and portents, "cream colored screams" as the poet Frank O'Hara once described them (in Art News), used to be deployed over canvas in small aggregations in intriguing changes of perspective. More recently, he painted slate-gray surfaces covered with rows of marks.

It has been said his work has a kinship with action painting and with Tapiès. But this American is a loner. He came to Rome more than 20 years ago. Because he fused American immediacy with European sophistication he was first appreciated here. He has been a great influence on painters in Italy, and still is. This show is of a grand simplicity and moving: it is his best.

* * *

**Robert Mangold.** D'Alessandro-Ferranti, 26 Via Tor Millina, Rome, until Dec. 18.

Portions of geometric elements are drawn over canvases which are in other geometric shapes. The form of the canvas cuts into the drawing, the drawing into the canvas. Mangold, a New Yorker, poses problems he does not have to solve. Though his approach is conceptual, his canvases have the effect of decoration.

—EDITH SCHLOSS.

### Paris

**Alexander Calder,** Galerie Maeght, 13 Rue de Téhéran, Paris 8, through December.

This exhibition includes 46 pieces, all but three made this year, all of them in the best Calder vein. The big room of the gallery is pure white and strongly lit, and in it Calder's toys—red, blue and yellow, white and black—hang from walls and ceiling or stand on the floor so that the whole space of the gallery seems filled with their leisurely movement and festive color. They all look familiar and now and then one gets the impression of having seen this piece before—a mistaken impression: Calder came back to his earlier subjects, not like Cézanne to his apples perhaps, but freely and with a freshness of spirit that makes repetition acceptable.

* * *

**Victor Koulbak,** Galerie Etienne de Causans, 25 Rue de Seine, Paris 6, to Jan. 17.

This show is Koulbak's first in Paris and includes a good number of drawings in the vein of those Koulbaks seen in the "Contemporary Russian Art" show at the Palai des Congrès. The artist left the Soviet Union last year. Characteristic of his work is the frontal view of people, as in some icons and medieval portraits. But each has something sober and strange. Some are masked under a woolen hood, others have idiosyncrasies to distinguish them. woman sucks a pacifier, has a nut screwed onto her nose. But Koulbak tion is gentle and his people stand disarmed b viewer.

* * *

**Alessandri,** Galerie Vis Rue de Seine, Paris 6, t

Alessandri works with of wood which he assemb they look like facsimiles o African objects: doors silos and fetishes. The and nostalgic rustic tone a reflected warmth—the often very elegant but found its own vitality.

* * *

**César,** Galerie Braubourg, du Renard, Paris 4, to

César, as a sculptor, notoriety by a variety of some imaginative sculptu the use he made of the hy press. Thus he displaye pressed automobiles reduc fairly compact cube of cr metal. The present show is "compressions" to be hung the wall—tarpaulins, crates board boxes, etc., reduced shape of a large and rathe painting.

—MICHAEL GIB

## DINING: *A German Gamble That Paid Off*

By Naomi Barry

PARIS (IHT).—"It takes guts to open a German restaurant in Paris," said Rolf Nefer, director of Au Vieux Berlin, 10 years after he attempted the impossible.

The first year was a bust. The next two years, he got along on *choucroute*. It is one of the best in town: A bed of crunchy sauerkraut and creamy mashed potatoes heaped with delicatessen: smoked pork chop, frankfurter, Nuremberg sausage, cervelas, slab of smoked fatback. But German cuisine is not only *choucroute*—"It is just one specialty," Mr. Nefer said. "I am glad to tell you that it is now down to 30 per cent."

Mr. Nefer came to Paris to represent German agricultural products. The French regarded the country across the Rhine as the Great Gastronomic Desert. To force himself on local consciousness, he established the restaurant Au Vieux Berlin and its two snack bars as a high-class showcase. These days there is hardly a German client. On the side, Mr. Nefer put in a small shop to sell products such as bread, cookies, meat products, cheese, canned goods.

"The first year we did 300,000 francs worth of business in the shop. Last year we did 2 million francs. All in 28 square meters. It is crazy. I have to keep it open until 11 p.m., the customer demand is so great."

Lunch the other day began with a shrimp salad Zellermayer. The latter was the Maxim's of Berlin during the twenties and thirties. The delicate shrimp, hardly bigger than a comma, are shipped in from Hamburg several times a week. The salad was prepared at tableside: shredded lettuce, the shrimp, hardboiled eggs Mimosa, and a dollop of sauce—mayonnaise with a dash of ketchup, a hint of horseradish, a suggestion of orange juice and a few drops of Weinbrandt (a white alcohol made from grapes). The tiny shrimp are so good that lemon juice would have been enough. However, the sauce is kept to a minimum and the flavor comes through unmasked.

The traditional way of serving matjes herring is under a blanket of heavy sweet cream. Vieux Berlin offers an interesting 50/50 combination—half heavy cream, half yoghurt—with the usual slivers of pickle and apple.

The restaurant has developed a brochette of matjes herring which has had great success with the French, but it is too far from the original product for a real matjes fancier.

The frankfurter was a find of the city of Frankfurt and, since 1929, the skinny, smoked, 100-percent pork sausage has been granted the official appellation of Echte Frankfurter, which designates the real stuff. A pair are accompanied by potato salad, or by a mound of grated horseradish which is even better. Good horseradish should make you weep a little.

Horseradish, toned down with heavy cream, comes with the smoked trout from the Black Forest.

Braised beef with bone marrow and spätzle, German style niblets of pasta, is a homey dish. Equally hearty, but more unusual, is a filet of pork cooked in beer and nuttily flavored with cumin. The garnishes are a fat baked apple, cored and peeled, the center filled with *airelles*—a European approximation of the Cape Cod cranberry—and a crisp little potato pancake.

Mr. Nefer has concentrated on those German dishes and wines which give the French the impression they have not gone too far abroad.

The apple strudel—apples, raisins, nuts, butter, sugar and cinnamon—baked within paper-thin crusts of pastry glazed under the grill is of a mouthwatering quality found only in central Europe.

At lunchtime, the restaurant is filled with businessmen. At night candles flicker on the tables and a pianist plays nostalgic airs. The service is distinguished by its amiability. The snack bars offer a streamlined menu of the same food.

**POTATO PANCAKES**
**Au Vieux Berlin**

**1 kilogram potatoes**
**50 grams potato starch**
**3 eggs**
**50 grams chopped chives**
**Salt and pepper.**

Peel potatoes and grate fine. Then squeeze in a towel to extract maximum of water. Mix with potato starch, beaten eggs, chopped chives and salt and pepper. Fry on both sides in hot vegetable oil until golden brown. Serves four.

*(Au Vieux Berlin, 32 Avenue George V, Paris 8. A second entrance at 45 Rue Pierre Charron, Paris 8. Telephone: 225.88.96. Closed Sundays. Average price: 80 to 100 francs. Snack bar: 40 to 50 francs.)*

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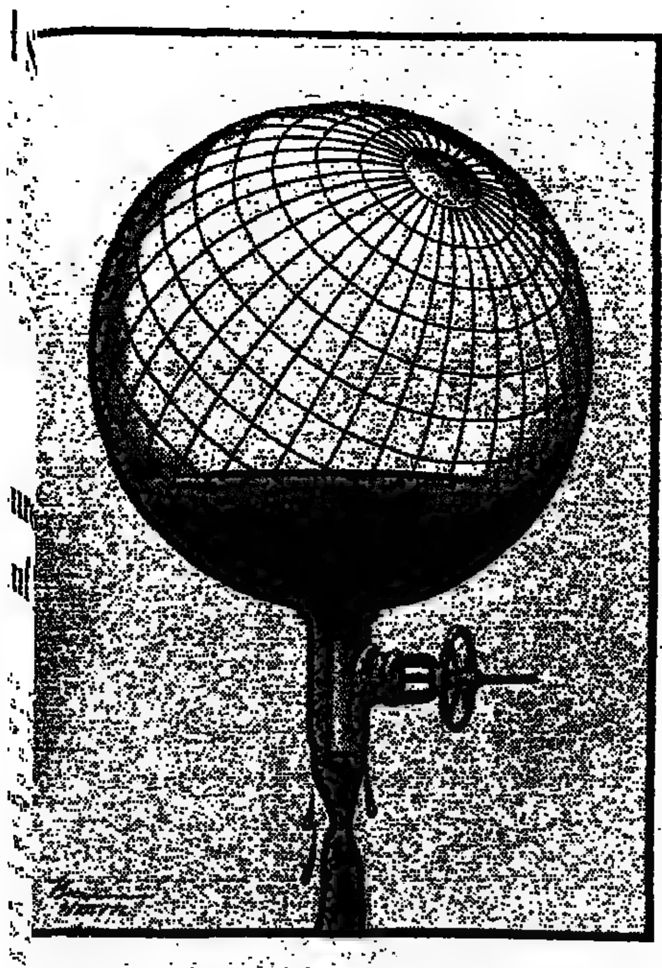


# FOCUS ON ENERGY

THIS survey of world energy seeks to pinpoint its significance not only within the context of energy itself but its impact on the political and economic development of nations, on producers as well as consumers.

In separate but often interlocking articles, the survey analyzes the changes in the world's energy pattern—indeed, in its economic and political balance—since the Middle East war in October 1973. It investigates the role of agencies such as the International Energy Agency, the European Commission, the Organization of Economic Cooperation and Development, the Organization of Petroleum Exporting Countries, the International Atomic Energy Agency and many others operating on a national or international basis.

THE problems of funding oil and gas exploration and development, nuclear energy and alternative sources are explored in detail; so is the issue of "recycling" of surplus oil revenues, a direct consequence of the Middle East war and the escalation of energy prices and costs.

There are reviews of energy sources, reserves (both proven and potential), their approximate duration, the consequences of depletion rates, their impact on the financing and economics of energy on a world as well as national scale. For this is an increasingly interdependent world: the problems of one set of countries such as the industrialized West are reflected in the reaction of another set of countries, such as the oil producers, just as the aspirations of the latter can deepen the problems of the West.

THE unequal distribution of energy reserves throughout the world coupled with the equally lopsided pattern of consumption have created further problems which are now as much a part of political and economic confrontations as of attempts at cooperation between nations and groups of nations. It also influences the pace of search for new and more effective forms of conservation and alternative sources of energy such as oil shale, tar sands, wind, tides, waves, solar and geothermal forces as do considerations of accessibility, cost, supply and demand and the nature of international relations at any one time.

Nuclear energy, the largest and most immediate prospect for bridging the looming energy gap (predicted for well before the end of this century) is itself the subject of [illegible] in advanced industrial countries and in [illegible] less developed parts of the world. Opposition [illegible] from the "doomwatchers" but from those [illegible] and "nuclear terrorism."

THERE are of course questions which are [illegible] this survey. There are projections which [illegible] indeed some of the forecasts were revised while [illegible] being written; others were still not available [illegible] can be tentative, indicating broad directions [illegible] posts but no certain solutions or targets. In [illegible] complicated field as energy, it is inevitable that [illegible] are in conflict with others.

One hopes nevertheless that the survey [illegible] help to those who wish to understand the [illegible] of the energy question, the vast diversity of facts [illegible] of view, indeed of illusions. For it is the [illegible] shroud the facts and distort points of view [illegible] and attitudes in international behavior which [illegible] threaten world peace.

## OPEC

## Saudis Are Key To Oil Producers' Front

By Alan Parker

[LO]NDON (IHT).—In its first [t]en years of existence no [...] impact on the public [cons]ciousness was made by the [Orga]nization of Petroleum Export[ing] Countries. Founded by Saudi [Arab]ia, Venezuela, Iran, Iraq [and] Kuwait in 1960, largely at [the i]nstigation of the first two of [thes]e, OPEC at first was no more [than] a protest against the moves [of] Esso and others to reduce [post]ed prices for oil, and hence [per] barrel oil revenues for the [prod]ucer countries, then based [on t]hese posted prices.

[Th]e protest succeeded. No [furt]her cuts in the posted prices [were] ever attempted, even though [effec]tive petroleum prices during [the] 1960s stayed well below post[ed] prices.

[In] practice, therefore, OPEC [gove]rnments were receiving con[side]rably more than the 50 per [cent] of the value of the oil that [the] concession arrangements were [...] supposed to give them. [And] by negotiating with the [com]panies a change in the [roya]lty-tax arrangements OPEC [mov]ed still further from the 50-[50 p]rinciple.

[Ne]vertheless, after ten years of this supposed cartel, despite the entry of new members, had done nothing to transform the allegedly unfair and inequitable terms of oil concessions then prevalent, and nothing to redress wrongs allegedly done to its members in the past. Nor had it had any glimmer of success in its periodic fumblings toward a policy on regulating the output of individual members. Too many powerful members wanted to stay free to produce as much as they liked.

### Major Revisions

The pattern changed in 1970. Libya and the Gulf producers negotiated major revisions in concession terms in their favor, a change that made its mark on oil price levels in Europe. But all OPEC had done was to provide the producers concerned with a clubhouse in which they had discussed their common problems for ten years, a modest secretariat, and a spirit of cohesion.

Even in October and December 1973, it was not OPEC that put up prices. It was the six Gulf producers. It was not until

(Continued on Page 12, Col. 1)

## IEA

## 19-Nation Consumers Rally to Challenge

By Michael Parrott

[PA]RIS (IHT).—When the [A]rabs imposed their oil em[barg]o in the autumn of 1973, the [majo]r industrialized countries [were] caught completely off their [guar]d. While the oil producers [were] able to operate in unison [thro]ugh the Organisation of Pe[trole]um Exporting Countries [(OPE]C), the first reaction of the [consu]mer nations was very much ["every] man for himself." Euro[pean] countries were only too re[ady] to obtain exemptions from [the b]an to bother about Holland [and] the United States, both of [whic]h were subjected to the full [force] of the embargo. But when [it ca]me to Middle East initiatives, [the E]uropeans felt they had been [comp]letely ignored by the United [State]s. In the scramble for oil [supp]lies, the unity of the Com[mon] Market, even of the Western [world] as a whole, was suddenly [threa]tened.

[It] was in this atmosphere of [mutu]al recrimination that U.S. [Secre]tary of State Henry Kis[singe]r invited representatives of the major consumer countries to a meeting in Washington in February 1974. It was there that agreement was reached to set up a consumer alliance—the International Energy Agency (IEA). Nine months later, in the conspicuous absence of France, the 19-member organization was formally set up in the Organization for Economic Cooperation and Development (OECD) buildings in Paris. The executive director was 49-year-old Ulf Lantzke, former director of the energy department of the West German Ministry of Economic Affairs.

The official aims of the agency were to secure oil supplies on reasonable and equitable terms, to introduce an effective oil allocation scheme in the event of an emergency supply shortage, to establish a dialogue with oil-producer countries and non-member consumer nations, including developing ones, to set up a comprehensive information system on the international oil market, to

(Continued on Page 12, Col. 3)

## EEC

## The Energy Crisis Seems To Provoke Nationalism

By David Haworth

[BRU]SSELS (IHT).—It's an odd [fa]ct that there is no men[tion] of a common energy policy [in] basic treaties on which the [Europ]ean Community is founded. [Neve]rtheless, the EEC has been [worki]ng towards such a policy [since] 1962—proposing at that [time] a three-phase development [of a] Common Market open to [non-m]ember countries and back[ed by] a system of aid to com[munit]y energy production. But [acti]on this was leisurely, to say [the l]east. It was not until the [energ]y crisis at the end of 1973 [that] the EEC was shocked into [aware]ness of the crucial impor[tance] energy factors will play in [the C]ommunity's future.

[It w]ould be nice to report that [the cr]isis three years ago (which [o]f course, continues in a dif[ferent] form) obliged the EEC's [nine] member nations to give [grea]t attention to attempts to [solve] their long-term energy [proble]ms. Unfortunately, this [has n]ot really been the case. The [energ]y crisis seems to provoke [the m]ost nationalist feelings of [prio]rity in this area. For the [Europ]ean Commission, which [foreca]st the energy problem well [befor]e the oil crisis actually broke, the crisis clearly shows the need for the Nine to create and apply a common energy policy both internally and externally. Its call was to some extent heeded, at least during the first months following October 1973. However, from the word go, its implementation ran into the obstacles created by the major divergences of interest between the Nine. At the same time, the trend of international developments resulted in a loss of interest by Common Market countries in the creation of a common energy policy. Eight of them are members of the International Energy Agency, and appear to believe that energy problems can better be solved at this level (the world's 19 richest countries, minus France) rather than in the EEC framework.

### Imported Oil

There can be no escaping the fact that imported oil has become the very foundation of Europe's prosperity for the foreseeable future. For the next 15 to 30 years, it can be expected that Europe's dependence on this or

(Continued on Page 13, Col. 2)

## Economy: Dwindling Reserves, Little Progress on New Sources

By Andrew Hargrave

LONDON (IHT).—Even before the Middle East crisis in the autumn of 1973, voices had warned about the depletion of the world's energy resources and the urgency of stepping up exploration, development, research, conservation and cooperation between producers and consumers.

The Middle East war, followed by a temporary embargo on certain countries and by the quadrupling of crude oil prices, succeeded for a while in concentrating the minds of Western nations on these vital issues. The International Energy Agency, set up at the instigation of the United States, prepared plans for anticipating such crises and for joint action in the case of another emergency. The European Community, all but France also members of the IEA, took the initiative along similar lines. Ideas abounded on how to "recycle" the producers' vastly swollen oil revenues.

Since then, however, interest in these laudable aims and objectives seems to have flagged. It has been revived somewhat in the last few weeks, because of Western anxiety over oil-price increases expected to be announced by the Organization of Petroleum Exporting Countries (OPEC) at their meeting later this month. But there is still no sign of any urgency in the search for new and alternative energy sources except perhaps in the North Sea, where tapping this important new oil and gas resource is chiefly seen as a means of alleviating the United Kingdom's economic plight.

One reason for this lukewarm approach may have been the economic recession which overtook the West in 1974-75, partly as a result of the escalating energy costs. The partial revival this year has been clouded by doubts over its duration, reflected in the recent forecast by the Organization for Economic Cooperation and Development (OECD), which comprises all advanced Western nations, of another recession possibly within the next 12 months. The International Monetary Fund (IMF) has been equally pessimistic.

### Growth

There is, of course, a close relationship between energy consumption, economic growth (as expressed in GDP, the gross domestic product) and standards of living.

Between 1962 and 1973, a period of overall economic growth, world consumption of primary energy rose by over 80 per cent from some 3.3 billion tons of oil equivalent to 6.1 billion tons. In the OECD countries, which in 1962 comprised almost two-thirds of the world's total energy consumption, consumption rose by two-thirds, from 3.1 billion tons to 3.4 billion tons. Growth was faster in the Communist countries in which consumption nearly doubled and fastest of all in the developing countries, including OPEC, where it more than doubled.

During that period oil and gas met more than 80 per cent of the increase in energy demand, oil alone more than half. That increase was reversed in 1974-75, but so was the rise in GDP. Decline was more pronounced in the OECD countries which are having to import more than one-third of their energy requirements. (The proportion of imports is much higher in Western Europe—it is around 60 per cent

**ENERGY RESERVES***

*(figures in billions of tons of oil equivalent)*

| | Total Reserves | Counsumption in 1974 | Duration of reserves, in years, at consumption growth rates of 0% | 2% | 4% |
|---|---|---|---|---|---|
| Oil | 233 | 2.8 | 82 | 49 | 37 |
| Gas | 171 | 1.1 | 155 | 72 | 51 |
| Coal, hard & soft, at recovery rates of 10% | 645 | 1.7 | 379 | 108 | 71 |
| 50% | 3,225 | | 1,895 | 185 | 110 |
| Uranium (cost up to $30 a lb) | | | | | |
| In thermal reactors | 59 | | | | No estimate |
| In fast reactors | 2,932 | | | | |

*estimate by UK Department of Energy.

**GLOBAL DISTRIBUTION OF RESERVES**

*(figures in billions of tons of oil equivalent)*

| | | Western Europe | North America | Middle East | Communist | Other | TOTAL |
|---|---|---|---|---|---|---|---|
| OIL | Proved (incl. offshore) | 2.8 | 5.5 | 50 | 14 | 17.7 | 90 |
| | Proved + probable | 3.3 | 8.0 | 59 | 18 | 18.7 | 107 |
| | Proved + probable + undiscovered | 11.5 | 29.0 | 80 | 59 | 53.5 | 233 |
| GAS | Proved (incl. offshore) | 4.2 | 6.6 | 13 | 16 | 11.2 | 51 |
| | Proved + probable | 4.4 | 10.6 | 15 | 16 | 14 | 60 |
| | Proved + probable + undisc. | 9.3 | 28.0 | 35 | 55 | 43.7 | 171 |
| COAL (high grade) | Proved recoverable | 25 | 112 | – | 126 | 33 | 296 |
| | Proved + probable at 10% | 28 | 163 | – | 347 | 18 | 556 |
| | Recovery rate at 50% | 140 | 815 | – | 1735 | 90 | 2780 |
| (low grade) | Proved recoverable | 9 | 8 | – | 32 | 6 | 56 |
| | Proved + probable at 10% | 3 | 33 | – | 61 | 3 | 89 |
| | R.R. at 50% | 15 | 110 | – | 305 | 15 | 445 |
| URANIUM up to $ 30/lb | Reasonably assured Thermal | 8 | 10 | – | N.A. | 12 | N.A. |
| | Reasonably assured Fast reactors | 409 | 521 | – | N.A. | 590 | N.A. |
| | Reasonably ass. + est. add. Thermal | 9 | 31 | – | N.A. | 19 | N.A. |
| | Reasonably ass. + est. add. Fast reactors | 455 | 1555 | – | N.A. | 922 | N.A. |

SOURCE: UK DEPARTMENT OF ENERGY.

**OECD ENERGY GAP**

*(figures in millions of tons of oil equivalent)*

| | 1974 Prod. | 1974 Cons. | 1980* Prod. | 1980* Cons. | 1985* Prod. | 1985* Cons. |
|---|---|---|---|---|---|---|
| Solid fuels | 644 | 680 | 775 | 819 | 938 | 987 |
| Oil | 634 | 1848 | 817 | 2185 | 963 | 2574 |
| Gas | 695 | 707 | 704 | 777 | 767 | 903 |
| Nuclear | 57 | 57 | 219 | 219 | 474 | 474 |
| Hydro/geothermal | 240 | 240 | 290 | 290 | 335 | 335 |
| TOTAL | 2270 | 3532 | 2805 | 4290 | 3477 | 5273 |

SOURCE: IEA

*FORECAST

in the [illegible]

### Reserves

## Politics: West's Vulnerability in Price, Participation Clashes

By Andrew Hargrave

LONDON (IHT).—The possession, control and use of important raw materials has been a major factor in international relations throughout the ages. This is especially true of the sources of energy—coal, oil, gas and, more recently, uranium. The control of these resources or their denial to a potential adversary has been the key to many twists and turns in the uneven course of history.

The conquest of the Ploesti, Romania, oilfields in the First World War and those of Baku, Soviet Union, in the second was among the top strategic priorities of the German High Command to support a war economy seriously short of domestic energy sources. France's reluctance to relinquish her hold on Algeria was not unconnected with the latter's resources of natural gas and oil; Britain's reaction in 1951 to the Iranian attempt to nationalize the Abadan oilfields and refinery had strategic as well as economic undertones, and set the pattern for similar clashes of interest since.

Nuclear energy has its origins in the most destructive human weapon so far invented and the opposition to it has been motivated to a very considerable extent by memories of Hiroshima and Nagasaki.

### Clashes

It is against this background that the price and participation clashes of recent years, the hitches in nuclear power station programs, the uneasy and sometimes malfunctioning alliances and groupings of producing and consuming nations must be viewed. A classical example is the Middle East crisis in the autumn of 1973 and its aftermath which is still very much with us. For the oil price rises that followed not only affected the prices of other sources of energy and consequently the balance of payments in favor of the producers, at the expense of the consumers, but also the domestic economies of the latter. This has in turn led in its cumulative effect to a major disturbance in the complex and highly integrated and interdependent economy of the industrialized West.

Disturbance has turned into a recession, the most serious and widespread the West has experienced since the last war. That is why the price increases the Organization of Oil Exporting Countries (OPEC) will be contemplating at its next meeting in Qatar later this month are already being challenged by leading Western countries, including the United States, Germany and the United Kingdom. They are challenged not only because the increases put an extra charge on energy but because of their overall effect on the tenuous and fitful economic recovery in the West and because of the further boost to the shift of the balance of economic power towards the producers.

The International Energy Agency, backed by 19 Western countries (all the major energy importers except France), was set up in November 1974 primarily as a consumer cooperative to present a united front to the 13-member OPEC. Its proposals for a series of countermeasures to stockpile oil, gas and coal, to search for new energy resources and to conserve existing ones has been paralleled by similar objectives put forward by the European Commission of the nine-member EEC. "Project Independence," launched by ex-President Richard Nixon in the wake of the Middle East war would have it as its aim to make the country altogether independent from outside energy sources.

### Politics

Just how far these plans, targets, objectives have succeeded is analyzed in other articles in this survey. The main reason for any lack of success has, however, been political: an absence of urgency and will to cooperate by the Western nations, rather than any concerted attack by OPEC. The memory of the traumatic quadrupling of oil prices, let alone the temporary embargoes imposed on the United States and [illegible] lands [illegible] already faded.

In fact, OPEC [illegible]

# The Saudis Are the Key to Oil Producers' Solidarity

(Continued from Page 11)

March, 1974, that OPEC ministers sat down to review prices for the first time with the power to set them unilaterally.

Nevertheless: the size, unexpectedness and timing of the December, 1973, increases, coming as they did in the midst of the shortages caused by the Arab cutback and embargo, detonated an explosion of resentment in consuming countries, above all in that erstwhile self-sufficient oil consumer, the United States. This most effective of cartels was charging an excessive price for an essential commodity, thus causing economic and political disruption in the West because of the inflationary and balance-of-payments consequences, plunging the world into recession, and ruining the economies of the developing countries. Fortunately, however, the cartel would stimulate a colossal glut of energy, thus bringing oil prices crashing down.

## A Different View

However, as time has passed a different view of the real nature of OPEC power has emerged. In 1974 the world economy sank into the severe recession that had been forecast before the oil price jumps. Demand for oil fell. But this drop was only slightly greater than the recession might have been expected to cause on its own.

Inevitably most of the drop in oil demand fell on OPEC. But, despite falls in total OPEC production, far from collapsing, effective oil prices actually rose further: with the changeover to state participation and nationalization, and the rationalization of the price formula on the Gulf at the end of 1974; and at the Vienna OPEC meeting in September 1975—at virtually the bottom of the depression—they were hoisted another 10 per cent.

All this would have made perfect sense if OPEC were a genuine cartel, regulating the rate of output of its members. But OPEC has no power to do this. Yet the drop in demand for OPEC crude in 1974-75 caused no strain on OPEC and did not prevent it from increasing prices further. True, there was some price-cutting by Libya and Iraq in 1975 and there were several price changes by Nigeria among others. Yet these did not precipitate a spiral of price-cutting. Clearly some other factor is underpinning the whole system. That factor, it is now clear, is Saudi Arabia.

## Saudi Arabia

Saudi Arabia is now the residual supplier of the world oil market. Its output goes up and down to balance up world supply and demand. As was clear in 1975, when demand falls beyond a certain point, other producers like Nigeria and Libya start shaving their prices.

But what prevents the whole thing from collapsing in a spiral of competitive price-cutting is the fact that behind it all lies Saudi Arabia. Saudi Arabia will not cut the price of its main crude, Arab Light, because this is OPEC's market price. And Saudi Arabia can absorb a drop in oil production from its normal seven to nine million barrels per day (bpd) to three and a half million bpd, without dipping into accumulated surpluses to meet its needs.

There is no danger of OPEC collapsing in a spiral of price-cutting so long as its members know that Saudi Arabia will not join in. On the other hand, if it chooses, Saudi Arabia can produce up to 11 to 12 million bpd. By flooding the market, Saudi Arabia could wreck any price level set by OPEC that it does not approve of. It has held this threat over OPEC at each of the last two price-fixing meetings, at Vienna in September 1975 and in Bali in May of this year.

In other words Saudi Arabia has the power to dictate the price. As the international oil consultants Walter J. Levy S.A. of London recently commented, "...as the world's marginal supplier of oil, and of energy, Saudi Arabia has now explicitly assumed the role of the determiner or arbiter of the prices of world oil and energy."

Similarly, Robert Mabro of St. Anthony's College, Oxford, has concluded. "... Saudi Arabia is the linchpin of OPEC. One could almost say without too much exaggeration that OPEC is Saudi Arabia."

This is the emerging consensus among expert observers. Mr. Mabro, for instance, points out further that this set-up implies that Saudi Arabia does not have control over how much oil it produces. And Walter J. Levy S.A. has pointed out that Saudi Arabia cannot control both price and its output level: in 1977 (temporarily) and in the 1980s Saudi Arabia might have to choose between lifting its present production ceiling of effectively 8.8 million bpd and losing control over the oil price—if and when demand for oil exhausts the available capacity of other producers but requires more than 8.8 million bpd from Saudi Arabia in addition.

Sooner or later Saudi Arabia may start setting the price with the deliberate aim of regulating world demand for oil so that the volume of oil needed from it is in line with what it wants to produce. But this point is some way off.

At present, although Saudi Arabia has an undisguised power of veto, OPEC price-fixing is still a compromise between those seeking higher prices because they have large revenue needs and/or small remaining oil reserves and/or are politically very anti-West, and the moderates led by Saudi Arabia, who are more anxious to avoid political provocation to the West, or to the poor countries, and who (in the past) have been keen to avoid prejudicing the long-term role of oil by over-pricing it now in relation to other energy sources like nuclear power.

## Inner Circle

It is also clear that within OPEC most weight is still carried by the inner circle of original founding members, especially Iran, plus perhaps Algeria. But, as the last two years have shown, non-members of OPEC, and notably the United States, have some hidden influence too—through the political pressure they are able to exert on Saudi Arabia.

Nevertheless, despite their noisy quarrels, OPEC members have demonstrated a stronger sense of solidarity than had been realised by many in the West. Its members all share a genuine resentment at the exploitation they believe themselves to have suffered from in the past. They believe that it was only by standing together that th[e]... secured the enormous g... now have made.

But for the moment ... darity is not OPEC's ... ingredient. The essenti... dient, most experts now ... Saudi Arabia. With equ... Saudi Arabia can pro... tween three and a hal... bpd and 11 and a hal... bpd. This range will ... of any likely fluctua... world oil demand and ... the next ten years or ... that Saudi Arabia wil... able to dictate the pri... Saudi Arabia looks li... remain the world's ... supplier of low-cost oil... long as the world's oil I...

## Radical Chang[e]

But why is it only n... the marginal producing ... is able to dictate the pri... OPEC made little or no ... sion on the price in th... The answer here seems to ... the world has changed ... since the early 1970s. Up ... too much oil had been ... above all in the Middle E... Africa. All OPEC membe... ed to produce more. ... faster their combined pr... grew, the weaker beca... price levels needed to s... oil. This overhang was w... in the early 1970s even ... America entered the world ... as an oil importer on an ... ing scale.

Now, world oil reser... still increasing but not ... as the growth of oil consu... Worse, estimates of how ... oil may ultimately be dis... suggest that the rate of w... production will begin ... towards the end of the ... so that very large quant... alternative fuel sources ... needed by then.

Given the problems now ... faced in stepping up pro... of coal and nuclear en... present oil prices, the t... oil prices looks likely to ... ward in real terms over t... 25 years. For Saudi Arab... world's marginal supplier, ... cannot absorb anything ... present level of oil reven... attraction of keeping the ... the ground is only too ... And that, probably, is why ... now works.

# IEA—Consumer Nations Rally to Face Challenges

(Continued from Page 11)

develop a permanent framework for consultations with oil companies and to reduce dependence on imported oil through long-term cooperative efforts on conservation of energy, on accelerated development of alternative energy sources, on research and development in the energy field and on uranium enrichment.

## Saber Rattling

It was perhaps inevitable that the creation of a consumer grouping so soon after the Middle East embargo should have been seen as an offensive move against OPEC. This impression was reinforced by France's refusal to have anything to do with the organization and the saber rattling of some U.S. politicians. William Simon of the U.S. Treasury Department argued that the new oil prices were too high, Thomas Enders of the State Department talked of the need to break OPEC; even Henry Kissinger warned of possible military intervention if vital U.S. supplies should be threatened.

Of course, the basic aim of the International Energy Agency is to change the supply/demand balance in such a way that consumer countries can once again obtain secure and reasonably priced oil. In this sense it is trying to weaken the position of the producers who can now virtually charge what they like because of the shortage of alternative energy supplies. But even the OPEC countries welcome the attempts of consumer countries to develop other energy sources and reduce their oil consumption. For it is only by reducing demand for their oil production that they can be assured of a longer life span for their reserves and only by encouraging consumers to develop their own energy sources that oil prices will remain high.

Indeed the most remarkable aspect of the IEA today is not so much the attempt to restore the buyers' market of the 1960s, but the recognition of the OPEC argument that the world's oil reserves are too valuable to be squandered through low oil prices. For IEA Executive Director Ulf Lantzke, the present price of oil is not just the work of a cartel, but the consequence of a shift in the supply/demand balance. The answer is not to break OPEC but to create a new market balance where those cartel powers will no longer operate. Ironically the only way in which this new market balance will be achieved is through higher prices. For it is only when oil becomes more costly that the consumer countries will be forced to reduce their consumption and investments in alternative energy sources become worthwhile. "The only real chance of oil prices falling again is if there is a serious economic crisis," says Mr. Lantzke.

## Progress

That does not, of course, mean that the IEA actually favors higher prices. There are times when agency officials wonder whether another sharp price increase is not needed to shake consumers out of their complacency, but for the moment all the agency is seeking is that its members pass on to the customers whatever increases are set by the producers. For until this is done—and it has yet to be done in the United States, Canada and Australia—even the existing possibilities in the conservation and development fields will not have been fully utilized.

After two years of operation, what has been the success of the agency? Its most obvious achievement has been its ability to bring together energy experts from member governments on a regular basis. In this way consumer countries have been able to compare notes and work out their individual program. Great progress has also been made in collecting market information from oil companies in such a way that governments can know what is happening without companies losing any competitive advantage. In the event of an emergency supply shortage, figures on all oil traffic in one month will have been assembled within the first fortnight of the month that follows.

Of key importance is the emergency self-sufficiency demand restraint and allocation system which is designed to keep consumer countries supplied with oil for at least 200 days. After the Suez crisis in 1956, the Organization for European Economic Cooperation (OEEC) set up a special oil committee to handle future oil emergencies, but with neither the United States nor Japan as members and unanimity required before any action, it was left to the oil companies to share out supplies in the 1973 crisis.

Under the new system companies will continue to shift the oil, but governments will assume the responsibility for its allocation. Members will cut back their consumption by seven and ten per cent respectively, if overall supply falls by more than seven or 12 per cent. After some adjustment has been made for importing countries to draw on stocks, remaining requirements are met on a pro rata basis according to whatever supplies are available, be they indigenous or imported.

The agency has played a quiet background role briefing consumer nations in the energy working group of the Conference on International Economic Cooperation (CIEC), but has so far had no direct contacts with OPEC. It has made a symbolic gesture toward protecting investments in indigenous oil by setting a minimum safeguard price for oil sold within the IEA and it has also encouraged a number of research and development projects.

Agreements have already been signed in fields of coal and nuclear power. A joint fluidized bed combustion rig is being built in Britain, new data services are being developed on the coal trade, research is being undertaken into nuclear reactor safety and the resistance of materials to the fusion process. Working groups are examining projects in new energy sources such as geothermal (Italy), wind (Holland), wave (Britain), solar (Japan) and biomass (Ireland).

But if the agency has acquired a reputation of being more dynamic and down-to-earth than most international bodies, it has not escaped some of their handicaps. Energy has now become such a sensitive political issue that it is not always easy to obtain cooperation from member governments. All too often politicians make high-minded declarations on energy development and conservation only to surrender to short-term political pressures. It is significant that in its recent report on "Energy Conservation" the IEA openly expressed doubts as to the will of member governments to push through with their conservation program and that member governments have now agreed to prepare lists of measures to which they would definitely commit themselves. Perhaps the most disturbing aspect of all is that the country which was mainly instrumental in setting up the agency has so far done so little to help it attain its supply/demand objectives.

With the prospect of OECD oil imports rising to at least 35 million barrels in 1985 compared to only 26 million in 1973, it is already clear that the agency still has a long way to go.

At the moment, consumer countries are heading for another supply shortage in the 1980s with the risk of yet another sharp increase in prices. This situation could still be avoided if consumer countries heed the warnings of the IEA secretariat and introduce a series of measures aimed at increasing energy supplies by 6 million barrels and cutting demand by 5 million, thereby bringing import demand to 24 million, well below OPEC's likely production capacity. Now that the President and Congress in the United States are of the same party, the United States may at last be able to give the IEA the example and performance it so badly needs.

# Soviet Union Is Rich in Resources but Poor in Technology

ɔON (IHT).— After the velopment of the Baku in the 1870s, Russia quickly as the world's second oil producer, and a leading porter. Today it is the largest oil producer, hav- ahead of the United last year. It provides the East Europe's oil require- and exports to the West er 1 million barrels a day to say half the production Nigeria).

the days have long since when Russia could disrupt n oil markets with its ex- as happened in the late century, in the interwar and in the 1950s. Nor is longer seen as a limitless of black gold available to Russian payments defi- Oil is becoming a problem

problem is not the mar- underfulfillment of produc- argets in successive 5-year As Jeremy Russell has in his recent book ("En- Factor in Soviet Foreign Saxon House), the ments of the Russian en- dustries have been substan- the past 20 years, in the of the handicaps they have bear: the Communist sys- management, the short- gs of other ministries and able physical challenges. these challenges probably most serious is simply Rus- geographic size. Russia is having to build oil and gas lines at a rate equivalent to lyeska pipeline every four or weeks.

## Larger Fields

old Baku fields have long given place to the large in the Volga-Ural regions, now form Russia's main cing area. But in these as well, output is past its in many cases. All the growth, and more, is to from east of the Urals and above all from those est Siberia. These are re- from the consuming areas, ic and geographic conditions problems and the oil (and deposits are frequently at depth. Yet West Siberian ction is to double between and 1980. Then it will ac- count for about half of total Soviet production.

But in terms of resources these fields involve heavy costs. It is the mounting resource cost of bringing into production increasingly remote and difficult fields that explains the sharp slowdown in the rate of output growth from the annual 12 per cent or so of the 1960s, to the 6.5 per cent achieved in 1971-75 (against 7.2 per cent planned) and the 5.2 per cent planned for 1976-80.

Beyond this there looms the worrying question of what will ultimately replace West Siberia. Discovery of new reserves has not been keeping pace with the growth of production. Over 15 years proved and probable reserves have risen in the ratio 100:220 while output has risen in the ratio of 100:340. Even the slower production rate expected for 1976-80 is no lower than the rate that reserves grew in 1971-75

## Gas

The slowdown in oil output growth, and the uneasy medium-term prospect come as Russia is in the middle of a major shift toward oil in its fuel mix: from 29 per cent in 1965, to 36 per cent in 1975 and a likely 39 per cent in 1980, by which time Russian automobile ownership will be at a much higher level than now.

*...the days have long since passed when Russia could disrupt Western oil markets with its exports, as happened in the late 19th century.*

Inevitably, therefore, increasing attention is being devoted to alternative fuels. Of course, output of gas is growing the fastest and reserves are enormous. Russia has over a third of the world's known gas reserves. Big scope exists for increasing output.

But the gas industry has had more difficulty in meeting its targets than the oil industry. Moreover the location of Russian gas reserves throws up some of the same problems as exist with oil. The older, nearer and easier fields have been fully developed. Again it is the remoter regions (West Siberia especially) that are having to provide the growth. But with gas, distances are far more costly than with oil, as gas costs something like five times as much to move as oil for a given heat content.

Some gas deposits (East Siberia, for instance) are too remote to be worth moving to the central Russian areas at all. Development of other deposits requires huge capital outlay, with relatively small economic benefit emerging only much later. By 1980 the share of gas in the energy mix therefore is estimated to grow only slightly above its 1975 proportion of 23 per cent.

## Coal

With coal, Russian reserves are probably even more plentiful. But they too are situated huge distances from the markets. To get them out, heavy costs would have to be borne to establish permanent working communities in remote regions—in a country that is now suffering a growing labor shortage—and infrastructure would be needed for these settlements, and for transporting the coal to the consuming regions.

These problems explain why Russia has been exploring the scope for cooperating with the West. On a modest scale a scheme seems to be going ahead for the Japanese to help in the development of Siberian coal resources. But nothing has come of the Japanese-American project for moving West Siberian oil to the Far East coast: the quantities of oil the Russians could offer proved to be far too small, besides other problems over finance and the Chinese attitude. Most spectacular are the pending projects to move Siberian gas to Murmansk and the Far East coast for LNG shipment to the United States and Japan.

## Exports

But neither of these looks feasible on economic criteria at present, unless large subsidized credits were made available from the West, if then. By contrast, piped gas to West Europe has made good progress. Here the Russians not only exchange gas for Western equipment; they also buy time, in that the gas is not delivered until some years after delivery of the equipment. Beyond this some Western oil companies are to assist the Russians with off-shore technology. But it is now clear that Western cooperation offers the Russians no easy escape from the tightening of energy supplies they will face in the 1980s.

Consequently, changes are now under way in the pattern of Russian oil trade. Russian oil exports to the West rose sharply in 1975, when the country was short of hard currency. Russian oil imports from the Middle East (including repayment of loans to Iraq) rose by a smaller amount. This year Russian oil exports to the West are up again, perhaps because Moscow is being influenced by growing unease in the West about the size of Soviet foreign debt.

But supplies to Russia's partners in Comecon are being pegged, or reduced. East European countries are now also being made to pay hard currency for some of these supplies, and much higher ruble prices (reflecting the jump in world oil prices) for the rest. Increasingly they are being forced to buy from the Middle East instead (hence the Adriatic pipeline to Hungary and Czechoslovakia now under construction) for bartered goods, or for cash. In 1980, or soon after, Russian oil exports to the West will be matched by the oil imported by Russia and its Comecon partners together. Comecon will then become a net oil importer on an increasing scale.

The oil-price revolution has drastically altered the balance of economic power between Russia and its smaller Comecon partners.

To meet their energy requirements they must now exchange vastly increased quantities of manufactured and other goods with Russia itself or with the hard-currency world. At today's world energy price levels Russia continues to exert powerful economic and political leverage even by supplying only a diminishing proportion of East European oil and gas needs for ruble payment, as the cost of replacing these ruble supplies with hard-currency oil and gas imports is now so much greater.

Russia itself, as a net exporter of oil and gas, has gained handsomely in the short term. But its long-run energy prospects now look far more ominous, as it looks forward to the time when its net flow of oil and gas exports shrinks and eventually gives place to net imports, at possibly increasing real prices, during the later 1980s.

—A.P.

# EEC's Policy Blocked by Nationalist Interests

(Continued from Page 11)

some external source (such as imported coal) will increase, not diminish. Even in 1971, imported oil provided 62 per cent of Western Europe's energy, and 59 per cent of that of the Community of Nine. By 1985, the figure was projected to rise to some 70 per cent of community needs.

This dependence grew out of the mixture of cheap and plentiful energy provided for the EEC by the oil companies. The EEC took the easy road they offered towards an economy built on a wasteful squandering of the world's oil resources and neglected other sources of energy that appeared more costly. All this is well known. Severe shortages of oil will mean many difficult years of adjustment, with grave social and economic problems. There is no substitute for imported oil in the short term. While self-sufficiency is a possibility for the United States but only with difficulty and at immense financial cost, for Europe such independence is inconceivable in the foreseeable future.

This means that Europe is committed to purchasing a major part of its energy needs on the world's market. It is committed to the future of international trade and its proper conduct. And it means that Europe's economic destiny is tied to the specific actions of the quite limited number of countries who determine the evolution of the world market in energy. In the world market for oil the number of major participants is quite small. So far as Europe is concerned a small number of Arab states provide 73 per cent of its total oil import requirements.

After the outbreak of the crisis the admirable and forceful energy commissioner Mr. Henri Simonet said that it was time for the community to lay down specific objectives for a common energy policy—rather than simply make forecasts about the future. A draft resolution, outlining the community's supply pattern for 1985, was therefore submitted to the council, which adopted it in December 1974.

The main aim of the resolution is to reduce the community's energy dependence which stood at 63 per cent in 1973, to below 50 per cent and, if possible, to 40 per cent. Such a reduction would make for greater security of energy supplies and reduce the burden which the increased price of imported oil had placed on the Nine's economies and terms of trade.

The objective is to alter drastically demand patterns for primary energy between now and 1985. On oil, for instance, the Nine hope to reduce their current dependence from 64 per cent to between 49 per cent and 41 per cent. The EEC is also trying to reduce oil imports by maintaining coal production at present levels and speeding up the development of nuclear energy as an electricity source.

Two general policy decisions taken by the EEC Council which have proved their worth are the creation of a community energy committee and the regular stock-taking of the overall energy situation in the community. These two policies constitute the only real concrete follow-up given to the decisions taken by the heads of state and government of the Nine at the December 1974 meeting. The energy committee meets regularly and has played a very useful role in the preparation of proposals made by the commission. It has turned out, however, that the contact between the commission and the Nine's experts (who form members of the committee) does not always guarantee the adoption at the political level (i.e., the ministers) of measures which have been proposed with their help. As for energy stock-taking, its confidential nature guarantees the commission improved access to information and enables it to keep a watchful eye on energy supply and consumption in the community.

In parallel with these arrangements, the EEC is also involved in subsidizing research and development projects on which private companies have embarked. It is one thing for the community to have reserves—such as oil and gas—but quite another bringing them to the surface. It is estimated that oil reserves under the North Sea amount to 2.4 billion tons while recoverable reserves of natural gas are probably in the region of 3,820 billion cubic feet.

If this energy potential is to be realized, considerable technological problems will have to be overcome. Offshore production of hydrocarbons (oil and gas) is difficult, dangerous and costly. The North Sea oil and gas fields are located in deep water where weather conditions are often bad and where production and transport problems are almost insurmountable.

To encourage companies to carry out the necessary research and development, risks have to be minimized or made acceptable. One way of doing this is to provide "risk" or "venture" capital as a financial aid or incentive to development. In other words money is provided to help in research and development which, under normal circumstances (that is, without extra financial support or guarantees), would not be considered justifiable in the light of the risks involved. This is where the community has stepped in.

Meeting in November 1973 as the oil crisis was beginning, the EEC Council of Ministers adopted a regulation providing for financial support for community projects in the hydrocarbons sector. This support was intended to promote technological development activities directly connected with prospecting for, producing, storing or transporting hydrocarbons likely to guarantee community energy supplies and accelerate the development of its hydrocarbon resources.

In general it was considered that, since these projects would involve technical risks and heavy costs, financial support from the community was necessary to keep their development from being blocked or delayed. Thus, the community planned to provide venture capital for projects offering reasonable prospects of success—projects sponsored by EEC companies and other organizations. Agreement on the first community financial support in the hydrocarbons sector was reached last year when EEC energy ministers meeting in Brussels agreed to grant community aid worth 42.5 million units to finance 21 projects. This community support will take the form of guarantees on loans or subsidies repayable under certain conditions (that is, if the projects turn out to be a success).

However laudable these and other EEC energy policy ambitions might be, it has to be admitted that this area of policy making has still not assumed the full importance necessity demands. Of course, any energy policy must be put into the context of other policies—economic, financial and monetary and social. In all these areas there is still a lack of community cohesion. What will happen if there is another energy crisis? It is to be hoped that the European Community will not fumble as it did on the last occasion.

# Industrialized Nations Slow to Set Up Conservation Policies

PARIS (IHT).—There are two ways in which consumer countries can reduce their dependence on energy imports. They can increase the role of indigenous energy in total consumption or they can reduce demand for such imports by energy-saving policies. When the International Energy Agency (IEA) was set up in November 1974, its members decided that both techniques would have to be used if Western countries were to restore some balance to the oil market. Supplies would have to be increased through increasing production of indigenous resources and intensifying research into alternative forms of energy, demand eased by reducing the extravagant consumption habits that had developed during the cheap oil era.

During the first months after the oil crisis, Western energy experts believed that the very increase in oil prices would be enough to turn the current sellers' market in oil into a buyers' one. In a study published by the Organization for Economic Cooperation and Development (OECD) at the beginning of 1975, "Energy Prospects to 1985," forecasters at the Paris-based organization claimed that the present price of oil would result in such an increase in indigenous supply and such a cut in demand growth that by 1985 consumer countries would have reduced their dependence on energy imports to only 20 per cent of total energy requirements, compared to some 35 per cent in 1972. With a very special effort in production and conservation, which the forecasters did not consider likely, almost complete independence of imports could be achieved.

According to the report, if oil prices remained at current levels (expressed in the report as $9 in 1972 prices) the OECD countries' total energy consumption would rise to 5.6 billion tons of oil equivalent in 1985 from 3.4 billion in 1972, while indigenous supplies would reach 4.4 billion from 2.2 billion. If special efforts were made over and above the automatic result of a higher oil price, supply could be as high as 5 billion, due largely to increased indigenous oil and gas production, while demand could be cut to between 5.4 to 5.1 billion. In this scenario dependence on imports would fall as low as seven to two per cent.

## Oil Imports

But what everybody is really worried about is the OECD's dependence on oil imports. For not only is there a limit to the rate at which producers are ready to extract their crude, but there is also the prospect of world supplies running out altogether. Under the OECD's long-term projection, indigenous oil supplies were expected to reach 1.3 billion tons of oil equivalent on the basis of present prices compared to 662 million in 1972. In total, oil consumption was expected to reach 2.3 billion compared to 1.8 billion in 1972, resulting in oil imports falling to 1 billion from 1.16 billion in 1972. Imports at this level, some 20.7 million barrels a day, would be enough to turn the sellers' market into a buyers' one.

Two years after that report was published it is becoming clear that consumer countries will get nowhere near the 20-per-cent dependence target for total energy imports, let alone the virtual self-sufficiency envisaged by OECD's crystal gazers. But what is much more worrying is that imported oil requirements may exceed what the OPEC countries are even ready to produce. With indigenous energy supplies now only expected to reach little more than 3 billion tons of oil equivalent, less than what had been expected had there been no oil crisis, and demand only marginally down at just over 5 billion, largely as a result of slower economic growth, dependence on imported energy as a whole is expected to be nearly 40 per cent. On present demand projections oil imports would pass the 1973 levels of some 26 million barrels a day to reach 35 million. And even that assumes that nuclear programs are maintained at present levels and that the United States relaxes its price controls on oil in 1979.

When the demands of non-OECD countries are taken into account, there is no way in which such oil import requirements could be met unless Saudi Arabia agreed to push its production well over 10 million barrels a day. But Saudi authorities have stated that they have no intention of raising output beyond around 8 million barrels a day. Unless something dramatic is done, consumer countries face another sizable oil price increase, if not a complete cut-off of supplies.

## Exaggerated Potential

So what went wrong? It seems that the main reason why indigenous production is not going to be as high as expected is because U.S. energy experts, and as a result OECD forecasters, exaggerated the oil and gas potential of the United States. With United States oil output in 1985 now expected to be less than 12 million barrels a day compared to 18 million, overall OECD supply may be less than 19.5 million compared to 26.7 million originally forecast. U.S. gas output is expected to be less than 440 million tons instead of 580 million, bringing overall OECD supply to less than 700 million compared to more than 1 billion. In the case of coal and nuclear energy the cutbacks are due to a slowdown in demand and environmentalist opposition, but U.S. output is expected to be only 580 million compared to 660 million, bringing overall OECD production to 938 million from 998 million. In nuclear energy, 1985 capacity is only expected to be 450 million tons compared to 756 million, largely because of slippages in U.S. programs.

On the conservation side some definite progress has been achieved, but it may also prove to be an illusion. According to a recent IEA report "Energy Conservation," total IEA energy consumption in 1975 was 4.8 per cent down on 1973 levels and 14.3 per cent lower than what had been expected before the oil crisis. Realizing that skeptics will argue that these savings were only achieved because of the recession, IEA economists have shown that virtually all members succeeded in reducing their energy consumption in GNP terms. A fairer assessment of the IEA performance would however have taken into account the even sharper fall in industrial consumption, which is a major source of energy consumption.

*Unless something dramatic is done, consumer countries face another sizable oil price increase, if not a complete cut-off of supplies.*

## Industrial Consumption

The real success of conservation programs will only become apparent this year and next when industrial production recovers. Last year the consumption of industry, which represents 37 per cent of total energy demand, was still 11 per cent below 1973 levels, while transport and residential/commercial sectors, which accounted for 27 and 36 per cent respectively, were almost back to their levels two years earlier. Transport and commercial/residential are sure to exceed their 1973 levels this year, but the great question is whether economic recovery will lead to a particularly sharp increase in industrial consumption.

In the first panic of the oil crisis, Western governments introduced a whole series of spectacular measures aimed at driving home the critical supply situation. There were carless Sundays, restrictions on shop lighting, reductions in heating, cancellations of motor rallies and early close-downs for television programs. But since then the IEA has adopted rather more long-term policies with the main priority of reducing oil consumption.

In the transport sector the United States has set an example by limiting motoring speeds to 55 miles an hour, but its cars still consume almost twice as much per mile as European models (although manufacturers are expected to introduce more economical cars from 1980) and drivers continue to benefit from extremely low gasoline prices. In Europe where cars are less extravagant in their consumption and gasoline prices are very high, speed limits are not always fully respected. Between 1973 and 1975 the worst performers in the transport field were Japan, West Germany and Canada; the best, Britain, Holland and the United States.

In the commercial/residential sector a succession of mild winters has been the main cause of energy savings, though some conservation has occurred through the higher prices charged. Governments are concentrating on making sure future houses are insulated properly, which could reduce consumption by as much as 50 per cent, but it is not always easy to reduce consumption in older houses. Worst performers in this field have been Italy, Holland, Canada, Denmark and Spain, the best, West Germany and Japan.

In the industrial field the main energy consumers are heavy industries like iron and steel which alone account for eight per cent of total energy consumption, aluminum production and chemicals for between six and seven; pulp, paper, glass, cement and building industries for two to four per cent. Several governments are encouraging these industries to adopt energy saving equipment without losing their trade competitiveness. Performances in the industrial field are difficult to assess in view of the different growth rates of member countries. Japan, West Germany, Holland, Sweden and Belgium did less well than the United States, Canada, Britain and Italy. Only Spain actually increased its consumption.

Just as on the supply the role of the United States is all-important, it is equally so in conservation. U.S. energy consumption last year was 12.7 per cent down on what had been anticipated before the oil crisis, but on a GNP basis it was one of only three countries that did not actually achieve any basic energy savings during this period. Characteristic of the U.S. failure to take conservation too seriously has been the inability of the government to bring oil and gas prices up to market levels.

When the IEA issued its report on energy conservation, some concern was expressed as to whether governments were really prepared to take energy conservation seriously. Noting that most countries considered supply expansion more important than energy conservation, the agency claimed that investments required to achieve energy savings would have a higher return and thus a more positive effect on gross domestic product and employment than many of the supply expansion alternatives being considered by its members.

It is significant that in its latest proposals to reduce anticipated oil imports in 1985 by 11 million to 24 million barrels a day, conservation is ex[...] account for 5 million. [...] measures proposed are [...] gasoline consumption [...] tax credits for installin[g] [...] saving equipment, bette[r] [...] tion for new houses and [...] ing of price controls o[n] [...] products. On the sup[ply side] [...] which is to bring in ab[out] [...] members are urged to [...] the award of offshore ex[ploration] licenses, push ahead with [...] tion and development in [...] shore field, subsidize te[...] for increasing oil recove[ry] [...] any obstacles to the bu[ilding of] pipelines, give greater [...] nuclear power and introd[uce mar]ket prices for energy. [...] moment, there is a [...] chance that the IEA [...] that extra oil than the[...] secure the extra supply.

# Uncertain Future for Oil Majo[rs]

LONDON (IHT).—The heyday of the international companies was the period between the wars. Exxon and Shell were multinationals 50 years before the word was invented. British Petroleum, with its vast supplies from Iran, soon followed, later reinforced by supplies from Kuwait, with its partner there, *Gulf Oil*. Texaco and Standard of California went international when Saudi Arabian crude began to flow in quantity. And the *seventh sister*, Mobil, emerged from the break-up of the old Standard Oil trust with several of the overseas bits of the old empire.

These integrated oil companies search for, produce, refine and sell oil products all over the world, spanning the world with their organization and distribution systems, smoothly and quickly balancing up demand for different types of products and crude oil. Large, integrated self-sufficient organizations, protected from government pressures by their size, expertise, internationality and commercial élan, the companies have aroused awe, suspicion, admiration and hostility.

After the war the legend persisted, but the reality began to change. As oil became more important globally, governments became more assertive in several ways. European governments began to ask awkward questions about the prices charged by the majors to their European subsidiaries. These worries soon gave place to others as Middle East production built up during the 1950s. Consuming governments became uneasy about their growing dependence on cheap fuel imported from an unstable region of the world.

## Consequence

But the surge of cheap oil was partly the consequence of the fact that the grip of the majors on the upstream end of the business was beginning to slip. Independent American companies had muscled in. So had state-backed European national companies like Italy's ENI and the French Elf-Erap. And, by forming OPEC in 1960, producing governments made sure that the oil glut did not eat into their revenues, but entailed merely lower profits for the companies.

In the 1960s the majors' predominance was under challenge from newly-assertive producer governments, by competition from independents, and by an increasingly watchful attitude by consumer governments, as oil became their industrial lifeblood.

In 1970 the pattern changed abruptly. The producers were able to negotiate big improvements in their concession terms. Suddenly the companies looked weak and helpless. The producers got the message.

In 1973 new terms (prices) were imposed without a pretense of negotiation. And by this time moves were afoot for the producing governments to take over the production altogether, relegating the companies to the role of buyers, and the providers of specialist expertise.

The companies still own the tankers, and refineries and the gas pumps. Above all they have the crucial expertise to ensure that the right oil is at the right place in the right quantities at the right time. They also have the financial strength for the increasingly costly job of exploration, which entails pouring millions of dollars down a row of empty holes, with no certainty that there will be a full one.

## Criticism

Crucial though this service is, the fact remains that—with an incipient world oil shortage—mere possession of the downstream facilities does not give the companies any bargaining power over the oil price. In consequence they have become a focus of criticism; in America, the companies are accused of making OPEC's cartel work.

In fact, in the last two years the companies have shown considerable alertness in switching their buying from one OPEC crude to another, in accordance with small fluctuations in values and prices of various crudes. But so long as the whole system is underpinned by Saudi Arabia, there is clearly not the slightest chance of this market activity exerting any pressure on the OPEC price.

Inconveniently, the 1973-74 price-jumps hugely boosted oil-companies' book profits—at a time when motorists were lining up for hours for gasoline. The shortages, the profits and then the unexpected non-collapse of OPEC in 1974-75 served to awaken all the lurking antagonism toward big oil in the American collective subconscious.

Hence the price controls, which have held down American oil prices below the world market levels; hence the loss of tax reliefs, and hence the campaign to split up the big companies. This campaign now seems to have run out of steam, though Mr. Carter has guardedly shown interest in at least making the oil giants get out and stay out of the business of competing fuels.

Outside America the influence of the majors continues to shrink. The disappearance of the oil-glut has stifled the competition they suffered from the independents (and prov[...] conclusive official inqui[ries] [...] West Germany and the E[uropean] Community).

But they now face on [one] hand the advance of the [...] companies of the producer[s] [...] now moving into tanke[rs] [...] with plans to set up [...] refineries. On the oth[er] [...] they face state-owned [...] backed national compa[nies] [...] consuming countries, wh[...] being edged into more pr[...] positions in their local [...] (such as France); these [...] given the inside track [...] producing areas; as with [...] in Norway, the British N[ational] Oil Corporation in Britai[n] [...] more hazily, Petrocan in C[anada].

All this leaves the future [of the] majors more cloudy than [...] been at any time in [...] 50 years. Some reckon th[eir] future vocation lies in c[oncen]trating on the role of h[...] the logistics of matching u[...] duction and demand [...] Shell—which started life [as a] middleman in the oil bus[iness] is the major most associate[d with] this idea. The cap woul[d] fit that other one-time [...] man, Exxon.

Others see themselves [...] as essentially providers of [...] British Petroleum, which [...] life as a producer and [...] envied for its exploration [...] might see things this way.

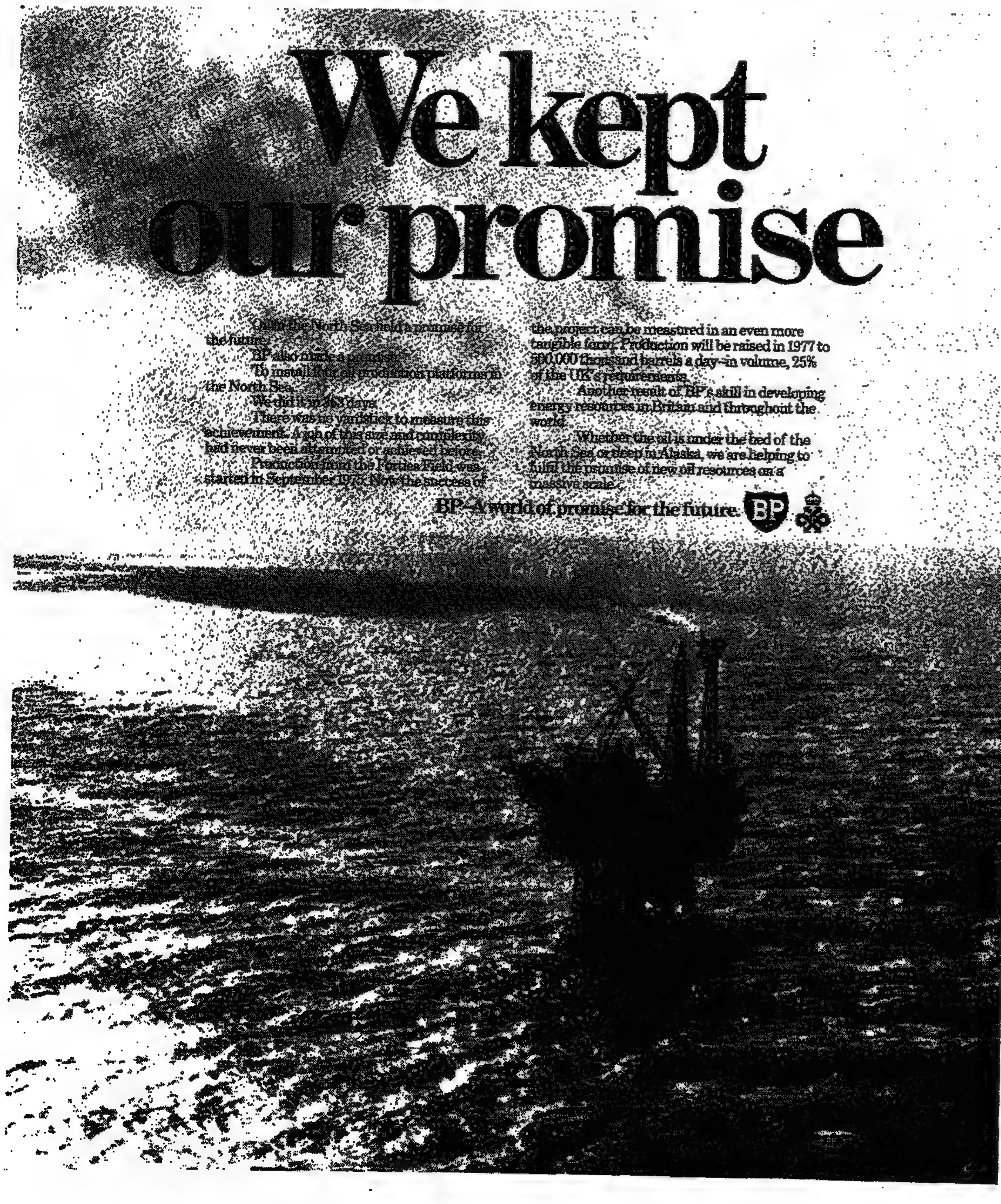
A third concept would [...] the majors to evolve into [...] broadly-based international [busi]ness organizations, not co[n...] themselves to oil. Mobil [...] major that comes closest [...] concept.

These might be the three ways the majors might eve[...] future for themselves. Mea[...] the more far-sighted of [...] have other worries. Unles[s] companies can provide [...] smooth adjustment and evo[...] in the world oil economy [...] will be attacked. Big upheav[als] like 1973-74 are blamed o[n the] majors. Some oilmen see a [...] bigger upheaval not more [than] 10 years away.

Unless the world adapts to the fact that its oil re[...] are already being burnt up a[...] as fast as they are found, [...] the consumption rate is still [...] ominously, that future finds [...] be increasingly expensive and [...] alternative sources are being [de]veloped too slowly, there w[ill be] a violent adjustment somethin[g] the 1980s, with shortages, a [...] ing price or both together [...] for this the oilmen will [...] certainly be blamed.

Hence the urgent [...] slightly frantic warning[s] [...] companies like Exxon [...] to consumer governments [...] something now.

—A.P[...]



# Future Energy Possibilities—Science Is Working on Them

By Barbara Burke

...S (IHT).—The sun, the ...d, the earth and the sea ... "new" sources of energy ... supply man to the end of ... with energy safer than nu... energy, cleaner than oil or ...

...it will probably be 25 years ... these sources begin to make ...ficant contribution to our ... needs.

...

...ch of these sources is the ... promising? Not everyone ... but solar energy comes up ... often. It is clean and in...tible. But it is also dif... and unreliable. The sun sets ...ht; it goes behind clouds. ...e cost of collecting solar ...—and especially of stor...—is a problem.

...r energy is most easily used ...t buildings or water; despite ...tial cost, in the long run ... competitive with tradi... systems, at least in rea...y sunny areas. The prin...is that of a greenhouse: ...collectors let in the maxi... amount of energy while ...as little as possible escape. ...aptured energy can also be ...o cool buildings, using the ...ple of the refrigerator, but ...is trickier because higher ...eratures are required.

...e biggest solar heating un...king now is an International ...gy Agency project in Wiehl, ... Germany, where 1,100 square ...rs of solar collectors on the ... of an ice rink heat an ...ent swimming pool. France ...orking on the use of solar ...y for a number of public ...ings, including the airport at ... The United States plans ...end $50 million between 1975 ...1979 on demonstrations of ... heating and cooling. It is ...ated that with a strong ... energy program, solar ...could supply 35 per cent ...rmal needs of buildings in ... United States by the year ...

...ducing electricity is more ...ult. There are two basic ...aches. Sunlight can be con...ed directly into electricity by ...voltaic cells, with an ef...ncy of five to 20 per cent. ...e devices are used in the ...meters of cameras.) Or it ... heat a fluid (water, for ...ple) to drive a turbine in ...ventional manner. To con...ate the sun's rays on the ..., special mirrors can be used ...d heliostats, which follow the ...

...e most grandiose idea for ...production of electricity is a ...voltaic power plant in space, ...0 kilometers from earth. ... or sixty square kilometers ...hotovoltaic cells would pro... about five gigawatts (five ...n watts) of electricity, which ...d be converted into micro...s and beamed back to earth. ... problem is what would ...en to someone who strayed ... that gigantic microwave ...")

...far less ambitious projects ...rth already have problems. ...voltaic cells now cost about ...0 per kilowatt electric, just ...e cells alone, so in the near ...edium term, solar electric ... plants will rely on the ...ng of fluids to run a tur... Several 10-megawatt pilot ...s are being planned in France and the United States.

But even these plants may be prohibitively expensive. Robert Hirsch, assistant administrator for solar, geothermal and advanced energy systems in the U.S. Energy Research and Development Administration (ERDA), recently told an ERDA committee that to bring costs down to $1,000 per kilowatt electric, one would have to make heliostats that cost only $100 a square meter—less, he said, than the cost of some billboards. And he said that even if one did that, the cost of energy storage to ensure reliable service might inflate the costs to $3,000 or even $7,000 per kilowatt electric.

## *Wind:*

Dr. Dieter Renz of the International Energy Agency says that along with solar energy, the wind is the most promising new source in the short term, although not on a large scale. Like solar energy, wind energy is clean and plentiful, but unreliable. Yet, conveniently, it is more abundant in winter, when energy needs are greatest: Europe is twice as windy in winter as in summer.

The biggest wind turbine, a 1.3-megawatt device, was built in 1941 at Grandpa's Knob in Vermont; it was abandoned after blade failure four years later. Small wind turbines are now commonly used to light beacons at sea, and a number of 100-kilowatt test turbines exist. The United States and West Germany are discussing plans for a one-to-three megawatt turbine—"like the Eiffel Tower with a propeller," Dr. Renz said. The output of even such a giant device would be peanuts next to a modern 1,000-megawatt nuclear power plant. But still it has been estimated that by the year 2000, the wind could supply 10 to 15 per cent of the United States' electricity.

## *Geothermal:*

The earth contains enormous amounts of heat, produced by the decay of radioactive material. Some of this heat comes to the surface when a volcano erupts, or in geysers like Old Faithful in Yellowstone National Park. In other places it exists at relatively shallow depths in the form of hot water.

Geothermal hot water already heats more than 90 per cent of the homes in Reykjavik, Iceland; in 1973 in Hungary, it heated 1.5 million square meters of greenhouses. The use of geothermal energy for direct heating in the U.S.S.R. is thought to be equivalent to one million tons of fuel oil a year.

One of the most ambitious programs for geothermal energy is in France, which has good supplies of low-temperature geothermal hot water, much of it conveniently in the Paris area. The French New Energy Sources Agency attaches nearly equal importance to geothermal and solar energy; director Jean-Claude Colli expects half a million homes, or their equivalent, to be heated by geothermal energy in 1985.

Producing electricity requires higher temperatures than those needed for heating; this can come from steam, from hot salty water, or from hot dry rocks. Electricity is already being produced from geothermal steam in Italy, the United States, Japan and New Zealand.

Unfortunately, the most plentiful source of geothermal energy is hot, dry rocks, which require the development of new techniques. At ERDA's Los Alamos Scientific Laboratory in New Mexico, researchers are experimenting with a technique borrowed from the petroleum industry.

Called hydrofracturing, it consists of pumping water under high pressure down a hole to crack the hot rock. A second hole is then drilled, and cold water forced down one hole seeps through the crack and returns hot to the surface, through the other hole.

But whatever source is used, there is a pollution problem: the water or steam that comes to the surface contains large amounts of salts and minerals, and some noxious gases.

The total world installed geothermal electricity generating capacity is now about 1,000 megawatts; estimates for the United States alone in 1985 range from 5,000 megawatts to 30,000 megawatts, much of it in the Western states. Other countries with good supplies include Mexico New Zealand, the Philippines, Indonesia, Taiwan and Turkey.

## *Biomass:*

Man is turning to the conversion of solar energy relatively late; green plants have had the trick for ages. Each plant is a miniature solar energy converter, turning carbon dioxide, water and sunlight into sugar. We consume that converted solar energy when we eat; we also use it when we burn wood, coal or oil.

Researchers are now working on new ways of using that energy—converting plants and organic wastes into gas, oil or methane either by oxygen-free fermentation, or by heating them under special conditions. Unfortunately, fuels so far produced this way are not competitive.

One problem is that green plants convert solar energy with an efficiency of only about one per cent; researchers would like to increase that to three per cent. But even then the growing of plants for energy on a large scale requires lots of land, which might compete with food production. And the costs of cultivation, harvesting and transportation are such that some experts consider biomass a "fringe technology."

It might, however, be important for countries with large uncultivated land masses; it has been theorized that Sweden could free itself from oil imports by cultivating fast-growing trees. And the use of organic wastes to produce energy is interesting, since you have to get rid of the wastes anyway.

## *The Sea:*

The United States, which has some warm territorial waters, is working on "thermal gradients." This technique uses the difference in temperature between the warm surface water and the cold water below to drive a fluid to power a turbine. ERDA is planning a one-megawatt pilot plant, to be followed by a larger one. The problems are cost and corrosion. Also, because the temperature difference is not great, the process is only about three per cent efficient.

Tides have been used to generate electricity at the Rance estuary, near Mont Saint Michel in France, for several years. But high costs, the environmental impact, and the scarcity of good sites will probably discourage the use of tides—which in any case are estimated to have a potential of no more than two per cent of the world's total hydro potential.

Interest in waves is strongest in the United Kingdom and Japan.

## *Fusion:*

Fusion is a gamble. If it works, it could eliminate the energy crisis once and for all. But no one knows whether it will work; and if it does, it will be at least 25 years.

Present-day nuclear power plants rely on fission, the splitting of atoms. Fusion is the opposite: the nuclei of two small atoms are joined together to form the nucleus of a larger atom. In the process, a bit of mass is converted into energy. Fusion powers the sun—so, in a sense, it is already the source of almost all our energy supplies. It is also the basis of the hydrogen bomb. The problem is to reproduce it in a controlled, continuous way.

There are now two basic approaches. In one hot gases are contained within a doughnut-shaped device by a magnetic field. Major projects exist in the United States, the U.S.S.R., the EEC countries and Japan, using the tokamak, the most widely-used approach to magnetic confinement today.

In the other approach, called laser implosion fusion, tiny pellets are bombarded with laser beams.

In either case, sea water provides virtually inexhaustible amounts of deuterium for use in fusion machines.

But even if physicists succeed in achieving self-sustained fusion—which could be achieved in the next ten years—the job will not be over. At that point, engineering problems would have to be overcome before the process could be economical. And this could easily take until the end of the century.

# *Electricity Use Could Be More Efficient, Less Costly*

PARIS (IHT).—The trouble about electricity is that it is an extremely inefficient way of supplying energy. It may be convenient, clean and easy to use, but it is extremely wasteful of the energy sources required for its generation. When gas or oil are used directly for heating purposes, between 60 and 80 per cent of their energy is applied, but when these fuels are used to generate electricity, the output is only 40 per cent, or even less.

If consumer countries are to reduce their dependence on oil and gas imports, they will have to develop other sources such as hydro, nuclear, coal, geothermal and even solar energies, which can only be applied indirectly through electricity generation. For every kilowatt produced by a nuclear or coal power plant, at least two kilowatts of energy is lost in the atmosphere. For every kilowatt of solar power produced, the waste can be four to six times as much.

Technologically there may still be some scope for increasing the energy productivity of primary fuels in electricity generation. Under some experiments energy output has been as high as 60 per cent. There are also tremendous opportunities for using the waste heat discharged in the form of heated water for district heating purposes. Countries like Sweden and Denmark are doing this, but in general public opinion is opposed to the construction of power plants near urban areas, a condition of any such system.

### Night Production

There are also possibilities for using power plant capacity more effectively by accumulating electricity produced at night, when demand is low, for use during the day, when demand is high. But for the moment, at least, it looks as if consumer countries will be forced to rely on a form of energy which is by nature wasteful of primary energy, losing power according to the distance it is transported and cannot be stored.

Originally electricity was made out of cheap hydro power. This is the reason why countries like Norway, Sweden, Switzerland and Canada have benefited from such cheap energy. But the number of sites for hydro schemes is limited, and coal soon emerged as the main source for electricity generation. With the arrival of cheap oil and gas supplies during the 1960s, these fuels assumed an increasingly important role and by the 1970s nuclear power looked as if it was going to take over.

By 1974 hydro accounted for 23 per cent, nuclear for five per cent and fossil fuels for 73 per cent of which coal represented 51, oil 30 and gas 19 per cent. By 1985 hydro was expected to be only 15, nuclear 25 and fossil fuels 60 per cent of which coal would represent 54, oil 35 and gas 11 per cent.

It was already clear at the time of the oil crisis that utilities would remain very dependent on oil well into the 1980s. A large number of power plants fueled by oil were already in existence and several more were in the process of being built. But nobody anticipated the slow increase in electricity demand that followed. Private householders slowed down their consumption in response to increased tariffs and soon afterwards industry slashed back its requirements; partly because of the increased cost, partly because of slowdown in activity.

With under-utilized electricity capacity, utility companies were often forced to further increase their tariffs to keep afloat, resulting in further discouragement of consumption, while the prices of competing energy sources such as gas and domestic fuel oil were often held below their market levels. The result was a general disenchantment over the whole concept of "all-electricity" homes, a deterioration in the financial situation of the utility companies and a resulting cutback in investment plans.

### Slowdown

Although the slowdown in the growth of electricity demand has occurred in a general flattening out of energy expansion, there is now a very real danger that utilities will delay their investment programs so long that they will no longer be able to turn to nuclear plants for any demand increases in 1985, and instead of falling back on coal, they will once again resort to fuel oil. That is why governments of consumer countries, especially the United States, should define their overall energy policies as soon as possible and why the International Energy Agency wants its members to undertake the construction of no more oil-fired power stations.

Of course, consumer countries could reverse current trends and actually reduce the role of electricity in total energy requirements. If oil and gas are going to account for as much as 40 per cent of electricity generation in 1985, it might be wiser to use these fuels directly and more efficiently. To judge by the pricing policies practiced by some Western governments, some countries are already moving in this direction. On this argument consumer countries are going to be dependent on the pricing whims of OPEC whatever happens and there is therefore little point in investing huge sums in electricity capacity, let alone in nuclear or coal power plants.

But if oil and gas are probably cheaper than electricity for heating purposes, there is still an enormous range of applications for electricity which cannot be fulfilled by any other energy source. Electricity is also the only way in which the future energy sources upon which we have pinned our hopes can be used. Solar, wind, tides, fusion—their energies can only be captured through electricity generation. This is why the world is virtually committed to becoming an all-electricity society.

The electricity option as such just cannot be abandoned. But much fuller use could be made of the energy produced. At the moment 60 to 70 per cent of the energy produced by a coal, gas oil or nuclear plant is wasted, 75 to 85 per cent in the case of solar. That energy could be used for district heating if only people would agree to having power plants built near urban centers.

Generating capacity could also be used more efficiently by sharing out the electricity load between different power stations and introducing accumulation systems which store electricity overnight for use during the day. Electricity generated at low-demand periods could be used to create further energy potential as when water is pumped upstream during the night in some hydro complexes.

Finally, the storage and transport problems posed by electricity could be overcome through the manufacture of hydrogen. In the end these savings could prove to be more important than most of the new energy sources that are so often mentioned.

—M.P.





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# Economy: Dwindling Reserves, Little Progress on New Sources

(Continued from Page 11)

distribution and consumption patterns throughout the world. In the article on oil we observed the huge deficits between production and consumption in the Western world, including the United States, with the bulk of reserves held in the less developed countries of the Middle East, Africa and the Soviet Union. The second table (P. 11) compiled by the U.K. Department of Energy from a variety of sources indicates in broad terms the geographical distribution of reserves in the four main fuel sources (billions of tons of oil equivalent).

The exploitation rate of even "proved and recoverable" reserves depends very largely on the urgency factor: that is, the technical, financial and manpower resources devoted to the task. For example:

The correlation between the price of uranium and the rate of exploration is a crucial one. Prospecting of uranium was virtually halted in the early 1960s by the "thaw" in international politics followed by uncertainties in the nuclear energy programs of advanced nations. This in turn led to a rundown in stockpiles: but according to some estimates a 50-per-cent increase in price ($45 per lb. compared with the $30 quoted in our two tables) would in fact quadruple the amount of uranium available for use through intensified prospecting.

This is already happening: at one time during the year the price per lb. reached $42.

Technical and transport problems, shortages of manpower (and sparse population), distance from the consuming markets and the need for huge capital investment stand in the way of a full exploitation of vast and partly proved resources, including shale oil in the Rocky Mountains, U.S., tar sands in Alberta, Canada, and, above all, the coal, oil, natural-gas and water reserves of western Siberia, in the Soviet Union.

In fact, the Soviet Union alone is estimated to possess almost two-thirds of the world's coal (hard and soft), almost one-third of natural gas, one-eighth of crude oil and a large proportion of the so-far untapped water resources of the world. But some of these reserves are in the remote regions of Siberia where lack of infrastructure, extreme weather and soil conditions, the lack of population in the sense of both working the resources and as consumers, and the necessity of transmitting fuel by rail, road or pipeline or in the form of electricity along cables would in any case be formidable obstacles to faster exploitation.

The Soviet Union, with plenty of more accessible energy reserves, has no great urge to accelerate progress. The situation may change if the Soviet Union felt obliged to step up exploitation on political grounds in order, for example, to export to prospective or wavering allies, particularly in the Third World.

The position of the West is, of course, rather different. In spite of the fresh offshore supplies of oil and gas from the North Sea (and of increased onshore natural-gas supplies from the Netherlands) and a crop of new nuclear power stations, IEA foresees the gap between domestic production and consumption of energy within the OECD group of countries steadily widening over the next 10 years (see third table, page 11).

## Nuclear Dilemma

One major factor in this deteriorating self-sufficiency situation is the United States with its increasing reliance on imports, particularly of Middle East crude. Another factor, shared by all the advanced Western nations, is the perceptible slowing down in nuclear power programs.

As already indicated, the only sources capable of narrowing the energy gap in the West in the medium term are nuclear power and offshore oil and gas in the North Sea. Not long after 1985, both oil and gas production in the North Sea are expected to start tailing off and the Western world will depend increasingly on nuclear power to meet energy needs, particularly in terms of electricity generation. Marginal increases in coal output in the United States, the United Kingdom, and West Germany (including a major new soft-coal field) would only be sufficient to maintain a reduced share in total energy supply.

The question of uranium prices has already been touched on, but, of course, the escalation in the prices of alternative fuels, coal and natural gas as well as oil, in recent years has in any case altered the economics of energy, particularly of electricity generation. That is why an increasing number of power utilities are looking to nuclear energy as a future fuel source: a trend greatly encouraged by the atomic energy agencies and some energy ministries in various Western countries.

### The Costs

| | LWR | Coal | Oil |
|---|---|---|---|
| 1969 .......... | 267 | 235 | 200 |
| 1974 .......... | 600 ± 75 | 425 ± 40 | 350 ± 25 |
| Range of ratios between estimates .......... | 1.59-2.15 | 1.64-2 | 1.63-1.83 |

A leading exponent of the nuclear argument is the International Atomic Energy Agency, whose chief economist, R. Krymm, recently produced a paper on the economics and prospects of nuclear-power generation in the developed as well as developing world.

Dr. Krymm sees many variables in the equation for even the conventional (thermal) nuclear power stations. In terms of fuel costs, reprocessing and fabrication may be set against the value of reprocessed uranium and fissile plutonium for recycling in the reactors. So estimates on this score alone may vary between a "profit" of $150 per kg. of metal in the most favorable circumstances and a "deficit" of over $100 per kg. in the most adverse ones.

But even in case of the latter, Dr. Krymm says, the break-even prices of coal and oil (that is, the levels above which nuclear power stations would enjoy a competitive advantage)—$3.76 per 10 million kilocalories of coal and $4.36 per the same value of oil—would be exceeded in most locations under the present price structure. In the most favorable circumstances for nuclear fuel, the break-even prices for coal and oil would be $1.84 and $2.35 respectively which, Dr. Krymm calculates, would give nuclear power stations "an overwhelming economic advantage."

## Other Factors

There are, of course, other factors to consider in comparing costs. Capital costs for all types of power stations have escalated in recent years as a result of soaring material and labor costs. The range of cost increases is widest at nuclear power stations as shown in IAEA estimates (above table) relating to changes in unit investment costs for light water (pressurized or boiling) reactors, coal and oil-fired power stations of 1,000 to 1,100 megawatt capacities, between 1969 and 1974.

The ultimate cost of power stations depends of course on factors other than fuel costs and capital expenditure. Such factors include the average load factor, periods of amortization and the availability of alternative fuels. According to Dr. Krymm in particularly import-sensitive areas such as Western Europe and Japan, IAEA case studies had shown that in the case of plants of 600 megawatt and above, nuclear power stations have a decided advantage over oil-fired ones.

He also argues for such appraisals being carried out on the basis of alternative power station programs rather than of single stations, "with a corresponding spread of the rather costly nuclear entry ticket over several plants." Therefore, Dr. Krymm adds, "the reasons for the paradox of shrinking nuclear programs in spite of the cost advantages must to a large extent be sought beyond the field of economics even though the latter may account for short-term effects."

These reasons include the well-known examples of plants ordered in the late 1960s on assumptions of 6-7 per cent annual growth in consumption coming into operation in the no-growth years of 1974 and 1975 and leading to unused capacities at a time of shortages of capital and escalating fuel costs.

Developing countries faced an even greater difficulty in funding capital costs. The uncertainties of the nuclear fuel cycle were yet another reason for the slowdown in nuclear power programs. Finally, there is what Dr. Krymm calls the level of "public acceptance"—the psychological resistance to nuclear power itself, particularly to what is called the "plutonium" economy highlighted by the fast breeder reactor.

But even if one ignores the fast breeder reactor for the moment, could nuclear power fill the energy gap in the last decade-and-a-half of this century? The IAEA's projection for the year 2000 suggests that even under the most favorable circumstances, with nuclear power generating well over half of total electricity, it would still meet only less than one-third of the total energy needs in North America or in Western Europe. The remaining gap would therefore have to be filled by alternative fuels and methods of power generation.

## Alternatives

The exhaustible but so far barely tapped oil resources of the world include tar sands and oil shale. Oil and gas can also be extracted from coal which, as indicated above, is the most abundant fossil fuel on earth.

Tar sands exist in many areas of the world but by far the largest deposits are located in the Alberta province of Canada. They are estimated to contain 300 billion barrels of recoverable oil. It requires two tons of tar sands to produce a barrel of oil, which poses the problem of waste disposal apart from the technical one of extracting the oil. Venezuela is also thought to have deposits of up to 50 billion recoverable barrels. While these deposits compare in size with the oil reserves of the Middle East, sheer accessibility rules out economical exploitation of all but perhaps one-fifth of the total.

According to Dr. M. L. Slim Shirrah, senior vice-president of the U.S. corporation Conoco (which has a stake in the Alberta sands), less than 10 per cent of the deposits can be surface-mined.

Oil shale, too, exists in large quantities, particularly in the U.S. where, Dr. Shirrah reckons, the Rockies alone contain 800 billion to 1,000 billion barrels of extractable oil. Pulverized shale is used directly to fuel power stations in the Soviet Union and also as a base material for gas. In Scotland mining was abandoned as uneconomical in the early 1960s. It is the economic rather than technical difficulties that hinder exploitation of both shale and tar sands at present, although Canada has plans to produce 10 million tons of oil a year from the Alberta sands by 1980.

The extraction of oil and gas from coal was technically solved a long time ago, with Germany liquefying coal on a large scale out of sheer necessity during the Second World War. Coal gas had been the main method of gas production until oil feedstock and more recently natural gas made it uneconomical. New methods of gasification, both underground and in a gasifier, have still not managed to bridge the price gap sufficiently.

Dr. Shirrah has calculated that oil or gas produced by any of these methods would cost $24 to $27 a barrel, which is more than twice the present price of crude oil and several times the price of gas. However, these vast deposits of tar sands, oil shale as well as coal, do ensure a strategic reserve of fossil fuels once the more accessible and direct supplies begin to dry up.

"Less accessible" sources of energy are, of course, already being tapped: typical examples are the Siberian coal oil and gas deposits, Alaskan oil, and nearer home the offshore exploration off the coasts of the Middle East, the United States, the United Kingdom, Norway and other places.

The capital costs of exploiting these sources are much greater per ton of fuel recovered than, for instance, onshore oil or gas in the U.S., Canada or the Middle East. According to one estimate, North Sea oil costs eight times as much to produce per barrel as Middle East oil; Alaska even ten times as much. Yet the capital costs of shale-based oil are estimated to be still 60 per cent more than the Alaskan oil and twice as high as North Sea oil. The cost gap between Alaskan and North Sea oil on the one hand and oil from tar sands is even larger.

## The Costs

The North Sea exploration program is a typical example of cost-consciousness, considering that a single large field such as the Forties or Brent, with annual peak production targets of 25 million to 30 million tons of oil, cost around $1.5 billion or more each to develop. So far 15 oil and six gas fields (the latter mostly in the southern North Sea) are on stream or have been officially scheduled for commercial development. But while Lord Kearton, chairman of the U.K. government-sponsored BNOC, reckons that they will produce returns of more than 20 per cent on capital invested and that the commercial development of seven or eight further fields may be announced within a year, the exploration consortia involved are obviously watching closely the trend of oil prices, inflation in development costs (including capital equipment), the U.K. government's taxation and participation policies and even movements of the £ sterling before embarking irrevocably on tapping the new wells.

It is the balance of such considerations that will eventually decide the degree and speed of exploitation of the Canadian tar sands or the oil shale deposits in Utah and Colorado, unless of course political strategy dictates otherwise.

## Conservation

One way of slowing down the exhaustion of the world's energy reserves is by conservation. The United States imports 43 per cent of its crude oil requirements in spite of being the world's largest oil producer. The energy consumption per head in the United States—and in Canada—is more than two-and-a-half times that of Western Europe or Japan and more than five times the world average. Some experts claim that the potential savings in energy use in the United States may be as high as 50 per cent: although it should be noted that while the United States, with less than 6 per cent of the world's population today consumes 30 per cent of the world's energy, 20 years [...] proportion was as high [...] cent.

Since the 1973 ene[...] consumption as we hav[...] dropped and some of[...] cording to the IEA, re[...] deliberate savings prop[...] pressed in relation to [...] GDP (which, as indica[...] direct relation to energ[...] ed), the overall saving[...] countries between 1973 [...] was 2.7 per cent, rang[...] 12.5 per cent in Belgiu[...] cent in Norway, Luxemb[...] Denmark, 7.2 per cen[...] U.K. and 7.4 per cent [...] (the top savers) to an [...] crease in consumption [...] of 2.4 per cent in Sw[...] The ratio was unchang[...] United States.

The reason for contin[...] consumption in the [...] Canada (where the [...] those three years was [...] per cent) is largely du[...] artificially low price o[...] For example gasoline c[...] end of last year 15.6 [...] liter in the U.S. and [...] in Canada compared [...] average of 32.4 cents i[...] countries as a whole. N[...] prices in both the U.S. [...] ada were well below [...] average: natural gas p[...] sells in the U.S. at less [...] the price of the Ne[...] which, like the U.S., is [...] ficient in gas. Taxes on [...] considerably lower in [...] than in the other count[...]

The IEA, in a recent [...] conservation, notes as a [...] ing fact . . . that some IE[...] bers continue to price e[...] low world market le[...] claims that this discoura[...] ciency in use: "In m[...] countries the populace is [...] that any energy problem [...]

The IEA underlines it[...] recommendations for ene[...] ings, from transport to [...] and the domestic user [...] course electricity, whe[...] average loss of heat is still [...] two-thirds of total capa[...]

Exxon Corp., in a st[...] potential energy savings, [...] that by the adoption of co[...] tion programs savings co[...] from four per cent o[...] energy consumption thr[...] the world in 1980 to nine [...] in 1990 and 13 per cen[...] year 2000. The total am[...] fuel saved could be as m[...] 7.3 million barrels of oi[...] alent in 1980, 24.1 million [...] in 1990 and 62.8 million [...] in 2000—which in fact [...] slightly less than the am[...] oil the world consumed in [...] and about half of last ye[...] tal energy consumption.

## Other Options

The fast breeder reactor [...] as a highly efficient user [...] nium has already been [...] on in this article. The [...] commercial versions are no[...] to appear on the scene [...] the mid-1980s in the [...] States, France and the [...] Union, possibly followed [...] United Kingdom. Everywh[...] debate is hotting up over [...] tendant risks, not only [...] chanical failure and con[...] radiation hazards but [...] plutonium "getting into [...] wrong hands." If all ener[...] cisions are ultimately p[...] ones, the FBR is probably [...] so than most. In any ca[...] capital costs (as opposed [...] lower fuel costs) would be [...] larger than those of conve[...] nuclear stations because [...] high degree of built-in safe[...] and high-cost materials; fo[...] reason alone FBRs are not [...] to make a major contribu[...] energy needs in this century [...] if environmental and oth[...] position were overcome.

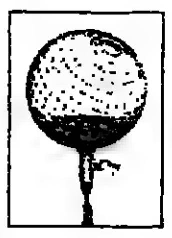
Several other energy so[...] such as the sun, wind, [...] waves and the core of the [...] (geothermal)—all dealt wi[...] other articles—are already [...] viding fringe benefits to th[...] sumer but on a very rest[...] scale, in very special ci[...] stances. Much remains t[...] done to achieve widespread [...] economical application: [...] pointed out by the U.K. De[...] ment of Energy that it too[...] years of research and dev[...] ment into the peaceful us[...] nuclear energy to bring it t[...] point of supplying one per [...] of the world's total energy [...] mand.

With such a time-scale in [...] the department adds, it [...] doubtful that all these so[...] combined could supply eve[...] per cent of the world's [...] energy needs by the turn of [...] century.

Energy by nuclear fusion in [...] form of a controlled therm[...] clear fusion reactor is still [...] more than a theoretical pos[...] ty well into the next cent[...]

## The Future?

For all the shocks created [...] the Middle East crisis, it [...] provided one blessing in dis[...] It has forced the world, in [...] ticular the highly energy-de[...] dent Western nations, to seek [...] operation in the planning, [...] ploitation, use, funding and c[...] servation of energy sources. [...] there is a long way to go to [...] tablishing joint priorities, at le[...] a start has been made.



# Politics: West's Vulnerability in Prices, Participation Clashes

(Continued from Page 11)
...ied on these grounds has ... interpreted by Western ...nments and oil companies as ...ore than an opening gambit ...aining ahead. Nevertheless ...the widely anticipated 10-per-cent increases are con-...bitterly in advance, with ...er-arguments on their eco-...soundness and justification ...ven hints (officially repu-...er at least unconfirmed) ...lomatic action such as an ...embargo to the Middle East. ...mentators in the West have ...ly pointed out that an arms ...go would not only damage ...nsuming nations' efforts to ...or oil imports with increas-... ports to the Middle East, ... and Latin America and ...down the process of "re-...g" the oil revenues, but ...he strategic aim of main-...g a friendly "buffer" in ...Middle East and Africa to ...expansion.

## Justification

...for OPEC's claim to in-...prices merely to keep ...with inflation, the U.S. ...ium Research Foundation ...sed figures recently to show ...commercial import price in-...es to OPEC countries aver-...only 2.7 per cent in the ...year. Admittedly these ...did not include military ...ment and installations ...s overcharging by some sup-...s is believed to have occur-... but taking these into ac-... Western commentators ...der it unlikely that OPEC ...ries would require even a ...r-cent rise in oil prices to ...ensate for inflationary in-...es in their import costs.

...reover, imports from coun-... like the United Kingdom, ... and, to a lesser extent, ...es, paid in the devaluing ...ncies of those countries ...ile oil exports to them are ...in U.S. dollars) have ob-...sly lessened the impact of ...tionary cost increases.

...their part, OPEC countries ...that notwithstanding the ...ly increased oil revenues, ...overall balance of payments ...deteriorated sharply since ...spectacular improvements ...74.

...timates from both U.S. and ...D sources appear to support ...claim. One such estimate, by the Morgan Guaranty Trust Company of New York published in September puts the combined current account balances thus (in billions of dollars):

| | 1974 | 1977* |
|---|---|---|
| Oil revenues | 102 | 128 |
| Other commodity exports | 7 | 9 |
| Service exports** | 4 | 6 |
| Commod. imports, f.o.b. | 38 | 82 |
| Services imports*** | 15 | 36 |
| Investment income receipts | 4 | 9 |
| Current account | 65 | 35 |

* revenues assume oil price increases of "at least 10 per cent."
** excluding investment income receipts.
*** excluding investment income payments on direct investment.

The decline in the OPEC balance of payments is in the main caused by the vastly increased volume of imports, not by inflationary price increases, according to the Morgan Guaranty Trust review.

Morgan Guaranty adds that a 10-per-cent-plus price increase would be "very disturbing" not only because it would threaten business recovery and weaken confidence in the West but because it would appear to be unjustified by recent price movements. The price of oil in terms of manufactures has risen by 6 per cent between 1974 and the first half of 1976, says the review: a 10-per-cent increase in the average OPEC government take next year "would imply even further appreciation in the relative price of oil."

The pressure for larger oil price increases comes from countries within OPEC which have already seen their balance of payments surpluses melt away or are on the verge of a balance of payments deficit. The former include large countries with relatively small export volumes such as Indonesia and Algeria but with ambitious programs of industrialization; the latter, countries with larger exports but limited reserves and similarly ambitious economic plans such as Iran and Nigeria.

Other big exporters such as Saudi Arabia, which contains almost one-fifth of the world's total known oil reserves and which is therefore in no hurry to accumulate funds (Morgan Guaranty reckons that of OPEC's total foreign assets of $120 billion—which may rise to $153 billion next year—Saudi Arabia may account for slightly over half), would prefer a more moderate price increase: hence the sustained wooing by Western governments and companies in recent months.

## Sufferers

To critics complaining about the difficulty of recycling oil revenues, OPEC counters with its own difficulties of long-term investment. Although Morgan Guaranty claims that the proportion of OPEC surpluses invested in short-term assets declined from 66 per cent in 1974 to only 24 per cent in the first half of 1976, OPEC suspects there still is resistance in the West to Arab money and particularly to Arab participation in its disposal—i.e., in the management of companies in which they invest. Major industrial investment such as Iran's stake in the West German engineering and steel concern Krupp or Kuwait's in the motor vehicle company Daimler-Benz are still the exception rather than the rule.

In any case, OPEC says, the main sufferers of oil price increases and the recycling of revenues are not so much the advanced economies of the West as the non-oil producing developing countries. This is confirmed by a recent OECD estimate of current balances.

Chief Feyide recognizes that the non-oil-producing developing countries have the worst problems, unable to pay for increased oil prices by proportionately stepping up their exports. On the other hand, he claims that OPEC countries "are playing a leading role in helping to resolve these problems," through the IMF, the World Bank and direct aid.

## Control

The OPEC countries do not conceal their objective of consolidating what they describe as the "New Economic Order" while oil production—and demand—are still at their peak and reserves show no serious depletion. That is why Western efforts at conservation and the opening up of new sources of energy have not met OPEC resistance—always provided that economic activity is maintained and demand for oil does not flag disastrously.

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This New Economic Order goes, as far as OPEC is concerned, beyond revenue increases, accumulation of foreign assets and a steady market for oil. It aims at an increasing control of crude oil resources, their disposal and processing, particularly as oil—and gas—comprise around 90 per cent overall of the natural resources of OPEC countries.

The process of OPEC—and other—oil producing countries acquiring first a stake in and later control of energy resources onshore and offshore began long before OPEC was formed in 1960, with the attempt by the Iranian government to nationalize the Abadan oilfields and refinery. The attempt was frustrated by an international boycott of Iranian oil which was only lifted when a British Petroleum-led consortium took over the assets formerly owned solely by BP. In December 1972, almost a year before the Middle East war, several major oil producers, including Saudi Arabia and Kuwait, signed participation agreements with the oil companies for the progressive acquisition of majority stakes in operating companies on their home soil, thus following a recent lead by Libya.

This was accompanied by a revision of the terms of the oil "take" through royalties, taxes and concessions in favor of the producing governments. After the Middle East war the period of stage-by-stage acquisition of majority control was shortened.

In fact (according to Mr. E.R. Cattarulla, of the Exxon Corp.) the Gulf countries already have an effective 60-per-cent participation in the crude oil operations within their borders while Venezuela, Kuwait and Iraq have full control of their oil resources. In addition, the royalty and taxation rates in OPEC countries had increased from 12 1/2 per cent and 55 per cent respectively in mid-1971 to 20 per cent and 85 per cent in mid-1976.

However, as Mr. Cattarulla remarks, "the appeal of complete takeover is not universal in OPEC circles."

Libya, he says, "stuck with 51 per cent participation even when the others went 60 40." Abu Dhabi "is another country which has publicly proclaimed that it wishes to retain the oil companies as investors." And while, Mr. Cattarulla adds, these two countries are in the minority, the other major OPEC members (including Saudi Arabia) "seem to feel that the dependence of the consuming countries on (their) oil will be sufficient to retain the commitment of the (international) companies to providing their needs."

## Changing Role

So, in spite of the status quo continuing in some countries such as Libya, Abu Dhabi and Nigeria, "in a majority of OPEC countries we appear to be moving towards a change in the role of the oil companies from that of investor to buyer of crude oil and provider of services." Some of the governments have teamed up with oil companies in downstream (refineries, petrochemical plants, etc.) as well as transport operations, including tankers, gas and chemical carriers and pipelines.

In its turn, OPEC argues that the changing role of the oil companies, the increase in the royalties and taxes they have to pay have not diminished their return on capital and sales. (This appears to be borne out also by their latest profit-and-loss accounts.)

Figures produced by the OPEC secretariat earlier this year purport to show that of the total cost of oil to the consumer, it is the taxes in the consuming countries that still claim the lion's share, well ahead of the share of the producing governments' take and the profits of the oil companies.

Figures reveal that during the three-year period when the total cost of oil rose from $20.46 per barrel to $33.17 per barrel (the actual rise in the price of oil took up by far the largest part of the total increase while refining costs remained stable and freight charges and other costs were actually declining), the trebling of producer government take did not prevent the oil companies from maintaining their share and taxes from continuing to claim a large proportion of total costs.

OPEC countries still provide 90 per cent of the world's oil imports: but in the purely European context the new resources discovered in the North Sea, mostly of the shores of the United Kingdom and Norway, will go some though by no means all the way to reducing the Continent's dependence on imported energy. (This too, is analyzed in some detail in other articles in the survey).

The Norwegian government, through its instrument Statoil, has from the start insisted on a 50-per-cent optional equity stake in oil and gas discoveries in its sector. In United Kingdom offshore, however, a similar development through the British National Oil Corp. only took place last year after a change in government. BNOC has 51 per cent purchasing options in only a few oilfields while some of the major oil companies, including Exxon, Shell and Mobil, have up to now refused to accept such a constraint on their processing and marketing activities.

Tony Benn, the U.K. energy secretary, seems optimistic that these companies would follow the example of Gulf, Conoco, Burmah and BP (provisional) which have signed purchasing option agreements with BNOC, particularly as equity participation is a condition of awarding exploration licenses, in the fifth round for which applications were made in October. Lord Kearton, chairman and chief executive of BNOC, claims that the state company already has direct control of about 25 per cent of North Sea production in the 1980s (when it will be at its peak) and some say in at least that proportion of the total output.

On their part, the major oil companies seem to dislike the British move even more than they did in the Middle East. They object to it partly on the grounds that the original terms of exploration had been changed unilaterally, partly (as one U.S. executive put it) for "behavior we did not expect from a member of the Western alliance" but more obviously because of such further restriction on their operational freedom.

However in the United States the entire future corporate strategy of the U.S. oil companies is at risk. Congressional attempts at "divestiture" would oblige the companies to shed their growing coal, nuclear, transport and other non-oil-producing interests. They are, of course, resisting not only because of the immediate threat to corporate strategy and profitability but because this strategy tries to anticipate long-term changes in energy patterns, including the decline in the world's oil and gas reserves and the consequent shift towards nuclear energy and other alternatives to fossil fuel.

So, in the wake of the more immediate instability threatening energy supplies (such as the prospect of another flare-up in the Middle East) looms the longer-term one associated with the worldwide expansion of nuclear energy, the advent of the "plutonium economy" and its inherent political risks. The deals involving the building of nuclear power stations in Brazil by Kraftwerk Union of Germany and a nuclear processing plant in Pakistan by a French contractor—neither country has signed the nuclear non-proliferation treaty—have aroused fears of such enlargement of the "nuclear club."

Yet another risk, highlighted by the International Energy Agency, is the increasing dependence of the advanced Western countries on imported energy. With the fast-declining reserves of the United States and the temporary stop-gap provided by the North Sea, the enormous and largely untapped coal, oil and gas deposits of the Soviet Union constitute a political as well as economic challenge the West cannot afford to ignore.

It is a challenge whose significance is enhanced by the growing gap in living standards between the advanced industrial nations and the energy-starved developing countries of Africa, Asia and the Far East. The Soviet Union may in the long term be in a better position to help bridge that gap than an increasingly import-dependent West.

For energy is a significant factor in shaping world politics of both the present and the future.

# Continuing Controversy Over Nuclear Power Programs

PARIS (IHT).—No energy source seemed more likely to benefit from the oil crisis than nuclear power. Ever since the United States exploded its atom bomb over Hiroshima thirty years ago, scientists have been trying to harness the atom's enormous potential for peaceful uses. Already in the 1950s nuclear power was seen as the natural heir to conventional fuels such as coal, oil and gas. A decade later the technology was ready, the manufacturing capacity prepared and the first orders were being placed by the utilities. But so long as consumer countries could count on freely available crude oil at rock bottom prices, there seemed little urgency in pushing ahead with the nuclear option.

The oil crisis provided that sense of urgency. The Middle East embargo made consumer countries realize how strategically dependent they had become on a few Middle East states. If something dramatic was not achieved, the policies of the United States, Western Europe and Japan would be decided not in Western capitals but in Tehran and Riyadh. With only limited indigenous oil and gas resources to fall back on, the only way the consumer countries could reduce their dependence on the Middle East would be through a return to coal or an advance into nuclear energy. For Europe and Japan, which have limited and poor coal resources, it was only through nuclear power that greater energy independence would be secured, but even for the United States coal alone would not be sufficient.

Already before 1973 utility companies had been attracted to using nuclear energy instead of coal, oil or gas for generating their electricity requirements. Not only was this new energy source cleaner than conventional fuels and uranium supplies easily available, but there was already a slight price advantage. But with the Middle East embargo and the quintupling of oil prices, the arguments for switching to nuclear power became very strong.

With nuclear power, utilities could obtain electricity 50 per cent cheaper than with oil or with less risk of a cut in supplies or an increase in production costs. Uranium represents only a small element in the cost of generating electricity and it can be found in a large number of countries, notably the United States, Canada, South Africa and Australia, which can be considered stable supply sources. If coal prices did not increase quite as fast as oil or gas, the inconvenience of this fuel and the environmental problems associated with it remained.

As a result of these strategic and cost considerations, one country after another announced dramatic extensions to their nuclear power plant construction programs. Japan and France, which are particularly dependent on energy imports, decided that nuclear-generated electricity should account for as much as 25 per cent of their 1985 energy requirements, West Germany 16 per cent, and the United States and Italy 13 per cent each. Within the coming decade consumer countries were planning to install four times as many nuclear power plants as they had done in the ten years before.

The importance of the nuclear commitment was recognized by the Organization for Economic Cooperation and Development (OECD) in its "Energy Prospects to 1985" report issued at the beginning of 1975. Basing their forecasts on what member governments had told them, the OECD economists reckoned that nuclear power would supply 756 million tons of oil equivalent in 1985 compared to some 35 million in 1972 if oil prices remained at their present levels. Representing some 600 gigawatts of nuclear power, this would have amounted to some 14 per cent of the area's total energy requirements.

## Future in Question

Yet within two years of those forecasts, the whole future of nuclear energy is being called into question. Some European countries like Denmark, Holland and Belgium have halted their nuclear expansion plans altogether, others like Sweden and Britain are moving in the same direction and the future policy of the United States is now uncertain after the presidential victory of Jimmy Carter. Even in those countries which were most committed to the nuclear option, such as France, Japan and West Germany, orders are coming through less fast than expected. According to the latest estimates made by the OECD, 1985 nuclear capacity may be little more than half what was originally forecast at only 419 million tons of oil equivalent, or 330 gigawatts.

It is often assumed that this slowdown in nuclear power programs is the result of environmentalist pressures. It is true that plant constructions have sometimes been held up by the difficulty of securing site authorizations and that governments have been influenced by popular hostility to nuclear power, but, so far, at least the main cause for the delays has been the slowdown in demand growth for electricity and the financial difficulties of utilities, whether private or state-owned.

When governments announced their nuclear expansion programs two years ago, they assumed that if energy demand as a whole were to grow less fast than in the past, the role of electricity would increase at the expense of primary fuels such as oil and gas. This increase in the importance of electricity from about 10 per cent to 14 per cent of total energy consumption was considered a natural development in the pattern of OECD energy demand, but it also helped reduce the area's import dependence.

But the governments had not taken into account the effect on demand of the sharp price increases of electricity and a severe economic recession. Instead of having to cope with an annual demand increase of some five per cent a year or more, utility companies found consumption actually fell for the first time since the war.

With their power plants working well under capacity, utilities were hardly in a position to undertake costly investments, especially when future demand remained so unclear. To make matters worse, the initial capital costs of nuclear plants rose 50 per cent within two years, the price of uranium went up five-fold and operating costs were raised by tougher environmental and security regulations. What had once been 50 per cent cheaper now had an edge of only about 30 per cent.

## Delays

Rather than commit themselves to build plants which might never be needed, the electricity producers preferred to wait until a clearer picture of the energy situation had emerged. They still considered nuclear power cheaper than oil, gas or coal, but they knew that if they got their sums wrong they could always rush out an oil-fired plant in four or five years compared to the eight required for nuclear plants.

But if the delays in the nuclear power program have so far been essentially due to demand factors, there is a real danger that environmental considerations may now prove the main obstacle to nuclear development. So long as environmental groups concentrated their campaigns on the dangers of radioactive particles emitted from the plants or on the danger of leaks from the reactor cores, governments found it relatively easy to show that nuclear power was less polluting or even dangerous than conventional power units. Indeed, many scientists would claim that if a thorough examination of the question were made, the coal cycle from mining to combustion involves more risk to life and the environment than the same elements of the nuclear cycle.

But with public concern now being aroused over the dangers of nuclear proliferation, the use of plutonium by terrorists and the problems of radioactive waste, some governments are wondering whether the game is worth the candle.

The problem is that conventional nuclear plants are in themselves no long-term solution to the energy problem as sooner or later they will run up against the same raw materials problems as oil-fired plants. Higher uranium prices should result in the discovery of important new uranium reserves, but the present known resources of the metal are expected to run out at about the same time as the world's oil and gas reserves are depleted.

So although existing reactors —be they heavy or light-water models—have enviable safety records, they are but a stop-gap measure until fast-breeder reactors have become commercial. For it is only with the fast-breeder, which consumes hardly any uranium and regenerates its own fuel, that cheap and plentiful nuclear energy will become available. But it is the fast-breeders which are now coming up against the most determined opposition from environmentalists.

A conventional light-water reactor operating on enriched uranium does not in itself constitute a major health or security hazard. Whereas an atomic bomb contains 95 per cent enriched uranium and is specially designed to explode and spread radioactivity, a nuclear plant operates on only 3 to 4 per cent of uranium enrichment and is built to contain the fission process.

The real danger lies with the waste materials, which contain highly radioactive materials, including plutonium used to make atomic bombs. By reprocessing this waste, utilities are still left with radioactive products which have to be stored underground in salt mines, granite or other substances, but they recuperate valuable enriched uranium and plutonium which they can reinject into their reactors.

This recuperation is important as conventional reactors will otherwise soon run out of nuclear fuel. If they do not use plutonium, they must rely on enriched uranium-235, which represents only 0.7 per cent of natural uranium. The snag is that reprocessing is the only way in which plutonium is made available for military purposes as well.

In the case of conventional nuclear plants the dangers of nuclear proliferation could be reduced by just not reprocessing the waste fuel and restricting the facilities for enriching uranium (when enriched to 95 per cent instead of the 4 per ce ed for reactors, uranium be used for bombs). T still leave the rather ha prospect of future ge living on the top of ra active waste deposits, chances of nuclear pro would at least be redu

However, in the case breeders, some reprocess ties are essential if the are to be supplied with tonium fuel they need breeders offer the tr advantage of being able vert uranium 238, rep 97.3 per cent of natural into plutonium fuel facing none of the fuel associated with con plants. But they could the dangers of nuclear p tion, especially if rep facilities got into the hands.

With no really sat solution yet found to t lem of nuclear waste growing threat of nuclea eration, governments a urally wondering wheth worth risking a world cat just to reduce their de on a few Middle East Would it not be wiser centrate on coal, oil and til alternative and less d energy sources can be de

There is certainly a te for politicians to slow do nuclear programs in th that these problems wil pear. But disappear the Even if nuclear program ped now, the world wo face problems from ra waste and nuclear proli In the short term, oil is real substitute for nuclea but there is no guarantee will be available, at leas acceptable price. From tific point of view it wou unwise to abandon a te just when it is about fruit. Industrially, such would appear unrealistic n so many interests are h Nuclear development wil tinue, but special attenti have to be given to the proliferation problems. when satisfactory answers questions have been found haunting association with shima be forgotten.

# Coal, Long Scorned, May See a Comeback

***In the first panic of the oil crisis it was only natural that people should forget their old prejudices against coal, but it soon became obvious that its comeback was going to be less easy than was first thought. In Western Europe and Japan most of the coal mines remained uneconomical, even after the quintupling of the oil price. Where coal could be mined cheaply—as in the United States—problems of transport and environment still remained.***

...S (IHT).—They had writ... n it off. Mining companies ... not attract young people ... underground, utilities ... nding it increasingly un... itive and inconvenient as ... ce of electricity, environ... ists objected to the land... damage caused by its ex... to the sulphur dioxide ... when it was burned and ... coal waste left behind. ... one its customers were ... abandoning it—ships and ... ys long ago; private house... In recent years, industrial ... nies and now the utilities ... lves. The coal era, charac... in Europe by the grimy ... the miner, landscapes dis... by coal mountains and ... mineworks, industrial ... blackened by the smoke ... himney stacks, was finally ... away to be replaced ... by oil and gas, eventually ... clear power.

... phasing out of coal was ... rue of Western Europe and ... than of the United States. ... en 1960 and 1973 West Eu... coal output fell from 384 ... tons of oil equivalent to ... llion, while that of Japan ... to 16 million from 42 mil... the only countries with ... cant reserves, Britain and ... Germany, had sharply re... their production, while ... of the other countries were ... down their mines alto... But even in the United ... where production had in... d from 251 to 350 million ... of oil equivalent, utilities ... turning increasingly to other ... y sources. Between 1960 and ... the consumption of coal in ... OECD area remained vir... unchanged at around 600 ... n tons of oil equivalent ... total energy demand rose ... 1,858 million tons to 3,468 ... n. In this period demand ... nearly tripled and that for ... oubled.

## A Revival

... year 1973 was to ... ge all that. When the Arabs ... ed down on their oil exports ... uintupled their prices, con... countries suddenly redis... ed the virtues of that most ... norous of energy sources ... had been responsible for ... of their industrial develop... during the past century. It ... rue that coal was not such a convenient fuel as oil. It was bulkier to transport, dirtier to use and for the moment, apart from its applications in the iron and steel industry, it could only be used economically to generate electricity.

Whereas oil and gas would only be capable of satisfying the world's energy needs for some 40 years or so, here was an energy source with a l"espan five to 10 times as long. Reserves estimated to be as much as 700 billion metric tons were widely scattered throughout the world with some 60 per cent inside the OECD area. Already competitive before the oil crisis as a source for generating electricity, coal from the United States, Australia and South Africa should now be a complete bargain. And once the costs of gasifying or liquefying coal had been brought down, coal could even replace oil and gas as a direct energy source in transport and heating.

In the first panic of the oil crisis it was only natural that people should forget their old prejudices against coal, but it soon became obvious that its comeback was going to be less easy than was firs' thought. In Western Europe and Japan most of the coal mines remained uneconomical, even after the quintupling of the oil price. Where coal could be mined cheaply—as in the United States—problems of transport nd environment still remained. With electricity demand increasing less sharply than anticipated, utilities were in no hurry to move back to coal, especially as in the absence of any established world coal trade they could not be sure of future supplies or prices. Rather than switch back to coal with its costlier power plants, pollution problems and land requirements, utilities preferred to push ahead with nuclear, leaving oil as a fall-back position.

So although the United States is sitting on coal resources which are almost as valuable as the oil reserves of Saudi Arabia, there was never any real chance that coal could immediately replace costly oil and gas imports. The most efficient mines could produce coal four or five times cheaper than oil, but once land transport was involved the difference narrowed sharply, and the most economic sources of coal were the open mines in the West of the United States where exploitation raises environmental issues over how the land should be reclaimed afterwards.

It was because of these difficulties and the long-lead time involved in opening up few mines that OECD forecasters never expected any immediate miracles from coal. In the 1975 study "Energy Prospects to 1985" U.S. production was expected to rise from 365 million tons of oil equivalent to 660 million, with exports increasing from 38 to 91 million, but West European production was expected to increase only marginally and that of Japan to fall slightly, although consumption in these latter areas would grow because of imports.

But even these modest consumption increases, which would have seen coal's share in U.S. energy requirements rise from 17.7 to 22.5 per cent and fall from 22.2 to 14.8 in those of Western Europe, are now unlikely to be realized because U.S. coal production is going to fall far short of original forecasts. With hardly any increase in electricity demand and a decline in steel industry requirements, there has been little incentive to open up new mines, even if the environmental problems can be overcome. In many areas transport problems still make coal uneconomical, but even where it is cheaper than oil and gas, utilities still prefer nuclear power which is cleaner, more convenient and in many cases cheaper. And if there is a problem over obtaining authorization for nuclear plants, the problems with coal-fired stations are not much easier.

## A Comeback

All this would not matter so much if nuclear power was really playing the role everyone had expected. But because of the flattening out of electricity demand growth during 1974 and 1975, the rise in nuclear costs and the uncertainties hanging over nuclear energy as a whole, nuclear capacities are now expected to be little more than half that originally planned. With both coal and nuclear not coming up to expectations and little more scope left for hydro, utilities may well have to fall back on oil and gas for their power stations. With nuclear plants taking some eight or more years to build compared to little more than four years for an oil-fired plant, the longer the utilities delay the more likely it will be that oil will continue to play an important role in electricity generation in ten years' time.

According to revised forecasts made by the International Energy Agency, oil will account for 45 per cent of the additional fossil fuel consumption needed for electricity generation in 1985, bringing its total share to 35 per cent from 30 per cent in 1974. The additional oil will account for a third of the additional oil imports required by 1985. But this does not take into account a more pessimistic assessment of 1985 nuclear capacity which could almost double the growth in oil requirements.

With growing signs that consumer countries will be much more dependent on oil and gas in 1985 than they had originally hoped, the prospect of a sharp increase in demand for oil from utilities is extremely disturbing. It is because of the threat of between 2.8 and 4.5 million more barrels a day of oil and gas being needed for IEA power stations by 1985 that the agency has just launched a crash program designed to cut back this increase by some three billion and the key to that program is increased use of coal.

Instead of setting coal imports into Western Europe and Japan at 60 million tons in 1985, the agency now believes the figure could be as high as 160 million. This objective could be reached if utilities agreed not to build any more purely oil-fired power stations (if coal units are not acceptable, they should at least be dual-purpose). But if Western Europe and Japan are to import more coal, measures will also be needed to develop a stable coal trade in which customers are not going to be subject to sudden price fluctuations. This presupposes long-term supply contracts, participations by utilities in coal mines, joint venture participations in coal transport and the preparation of ports to export and import the coal. It also presupposes greater exchanges of information on coal-trading problems as a whole.

## Alternative

But if coal is really to become a serious alternative to oil and gas, or even nuclear, some way must be found to meet environmental objections to strip-mining, a sufficiently cheap technique developed to remove sulphur from coal—through stack gas scrubbing or fluidized bed combustion—and greater research carried out on gasification or liquefaction of coal. For the moment synthetic oil and gas produced from coal cost at least twice as much as the products they are trying to replace, but when used directly for heating, they are not much more expensive than electricity. South Africa is already building its second coal liquefaction unit and in Europe and the United States research is being carried out into the possibility of producing coal gas within the mines themselves.

So long as coal's main energy role is limited to electricity, it can be no real answer to the world's future energy requirements. It is true that electricity may eventually account for as much as 50 per cent of energy consumed compared to only 10 to 20 per cent today, but coal will probably be only one of several energy sources used for steam generation. If its main rivals today are oil, gas and conventional nuclear power, tomorrow it could be fast-breeders, solar, geothermal and other new energies. But if coal is really to take over the position currently held by oil and gas, liquefaction and gasification will be essential. Only then will coal become an energy source which can be universally applied, cheaply transported and pollution free. Oil and gas would no longer be needed and even the nuclear commitment could then be reconsidered.

—M.P.

# Gas Has Big Potential, But Transport Is Costly

LONDON (IHT).—It is only since World War II that natural gas has come to be used as a fuel on any real scale. Even by the 1973 energy crisis, in Japan for instance, gas use was minute. But by then gas had already become very important in the United States, where it had come to provide almost one-third of total energy supplies. In Western Europe the ratio was much smaller—around 10 per cent—but was growing fast, and giving rise to hopes of a large place for gas in Europe's future energy supplies.

In the United States gas came up with the oil in the big new fields in Texas and neighboring states. After a while, instead of being flared, it began to be gathered for use as a fuel in the surrounding area. But it was only after the war that compressors, pipeline materials and other aspects of the technology of long-distance gas transmission had progressed to the stage where the gas could be piped to the distant Northern states in large volume. Meanwhile gas from the Albertan fields in Canada found a market across the border in the American Midwest.

In Europe the age of natural gas was inaugurated after the war when Agip, with Enrico Mattei at its head, found gas in the Po Valley, and so established the basis of what soon became the formidable Italian state oil and gas organization, ENI. Later there came the substantial deposits at Lacq in the French Pyrenees and then the enormous field at Groningen in northern Holland.

## Groningen

The Groningen field was important for three reasons. First its great size: some 3,000 billion cubic meters, or the equivalent of some 12.5 billion barrels of oil. By way of comparison, the proved reserves in the entire British sector of the North Sea were most recently estimated at 10 billion barrels. Secondly it was decided that roughly half of the Groningen gas would be exported to other European countries, at a time when international trade in gas was minuscule and in many European countries national gas distribution systems were rudimentary or non-existent. Thirdly, it was the Groningen discovery, combined with small finds in British Yorkshire, that aroused suspicions that large gas reserves might lie in a belt between the two, and so precipitated the search for gas or oil, under the North Sea, beginning in the early 1960s.

Gas was soon found in the British sector, though ironically the geology proved quite different from that of Groningen. Later oil and gas were found together at the southwesterly tip of the Norwegian sector, called the Ekofisk field, and the search moved northwards, where large volumes of oil were soon discovered, with associated gas in many cases, plus some non-associated gas fields, of which the largest so far is the Anglo-Norwegian field of Frigg.

Groningen gas production is now approaching its peak, with over half the annual output going to West Germany, France, Belgium-Luxembourg, Switzerland and Italy. France and Italy are still drawing on their deposits—in Lacq, and in the Po Valley and elsewhere in Italy. Britain has its production from the southern North Sea fields. West Germany has a very large number of relatively small gas fields, with the bulk of production coming from the region close to the Dutch border and not far from Groningen. In 1975 OECD-Europe consumed gas equivalent in heat value to just over 150 million metric tons of oil, or some 13 per cent of its total energy requirements, with Britain, Holland and West Germany each accounting for around 20 per cent of total consumption.

During the next five years Europe's gas supplies will increase substantially, and by 1980 gas will probably account for some 16 to 20 per cent of total energy consumption; but after 1980, gas consumption may grow slightly more slowly than the total energy market. During the next five years the Ekofisk and Frigg fields will come on stream, with Ekofisk gas going to West Germany, France, Belgium and Holland, and Frigg gas to Britain. The flow from the British North Sea, and from West Germany and Italy will increase. But equally important is a new factor. Gas imported from outside OECD-Europe will treble. By 1980 these imports may represent about one-sixth of all OECD-Europe's gas consumption. And between 1980 and 1985 these gas imports may double again, while Europe's own gas production will probably remain about constant.

After 1985 imports may become even more important. Production will be declining at Lacq, Groningen, the British North Sea and some of the older West German and Italian fields. New European gas supplies may be forthcoming from Statfjord and other fields in the Norwegian sector, plus, probably, others yet to be found there. But otherwise, to replace its declining domestic production, Europe will need to look outside its own borders. It is already doing so.

Europe's first external gas supplier was Algeria. Oddly enough, the first recipient of Algerian gas was Britain. The world's first liquefied natural gas (LNG) contract entailed the supply of some 1 million tons a year oil equivalent of liquefied gas to Canvey Island in the Thames estuary starting in 1966 and, needless to say, was negotiated before gas was discovered under the North Sea. The gas still arrives: LNG is useful to the British Gas Corporation; stored in liquid form (at minus 161 degrees centigrade), it occupies little space and can be regasified and used to meet demand peaks.

## LNG

After the Canvey contract two contracts to France soon followed. LNG tankers now also bring Algerian gas to Le Havre and to Fos, near Marseilles. Libyan LNG, from 1972 onwards, began to arrive in Italy, and then also Spain. Algeria also supplies small volumes to the American East Coast, while LNG from the southwest coast of Alaska has been shipped to Japan since 1970. The world's largest operating LNG trade began in 1973, when Shell and Mitsubishi began to supply Japan from Brunei, where the rate of supply, now on peak at some 6.7 million tons of oil equivalent a year, makes Brunei the world's largest LNG exporter today.

LNG trade will grow rapidly in volume over the next ten years. Next year Indonesia will launch the world's largest LNG project so far when its deliveries begin to Japan. Malaysia will become an exporter on a slightly smaller scale in 1981: Abu Dhabi (also to Japan), on a small scale next year, and with a larger contract under discussion; Australia, possibly in the early 1980s to the U.S. West Coast, Japan or both. Above all, new Algerian trades to Europe and the U.S. East Coast will go into operation so that Algeria should again be the world's largest LNG exporter by 1980.

*Now almost all international gas prices are linked to oil prices. This however leaves the producer exposed to the risk of a fall in price, a risk his bankers would look on with disapproval. In turn, producers have tried to limit their downside risk by inserting floor prices into their contracts. In theory the gas buyer is then left in a painful 'heads you win, tails I lose' situation.*

But Algeria's gas exports to the West will be equalled by piped supplies from the Soviet Union. Indeed, for Europe, Soviet supplies will be much bigger: besides its supplies to Eastern Europe, it is under contract to supply Western Europe with some 23 million tons of oil equivalent by 1980, making it almost as large a supplier as Norway. And supplies from the Soviet Union should increase further after 1980. Developing distant Soviet gas fields requires Western steel pipe, compressors and other equipment: payment can be made by gas.

And, since the swap agreement between Iran, the Soviet Union and a West German-led group of European buyers, it looks increasingly likely that much of Iran's large available gas deposits will in fact be sold to the Soviet Union, as gas from Afghanistan and Iran has been sold on a small scale already since 1968 and 1971. This will release other, though perhaps slightly smaller and more expensive, volumes of the Soviet Union's own gas for Western Europe. Other Iranian gas will go to Japan as LNG, and possibly some to the United States.

What looks distinctly less feasible now are the two grandiose Soviet projects for exporting LNG to the United States and Japan, which came to the fore during the détente euphoria of 1973. For a start the Soviet Union has no LNG technology: Western firms would have to construct the facilities, and in unfavorable conditions. And not only are the marine distances considerable (Murmansk-U.S. East Coast, Volga-U.S. West Coast), but for both the west Siberian and east Siberian projects 2,500-3,000-kilometer pipelines to the coast would be needed, too, to be built in conditions not altogether different from that of the Alyeska pipeline, which is a mere 1,300 kilometers. The east Siberian reserves have not even been properly proved yet. And it seems more likely now that the west Siberian ones will all be piped to Europe instead, or consumed domestically.

## Pipelines

Pipelines are gaining ground at the expense of LNG everywhere. Although prices have yet to be agreed, and some technical problems still to be solved, Italy and Algeria now look set to go ahead with their undersea gas pipeline project via Tunisia and Sicily. Similarly France plans to take Algerian gas via a large pipeline crossing over to Spain from either the Algerian or Moroccan coast, and then up into France. The most important LNG pipeline choice now pending concerns Alaskan gas, and whether to move it via a Canadian pipeline, a pipeline through Alaska and Canada, or an all-Alaska pipeline and then as LNG down to the West Coast. The U.S. administration will probably take a decision next year, but with non-economic considerations included in the calculations.

Despite the large number of LNG tankers on order—42 ships at end-June, against an existing fleet of 29 ships—there is little prospect of an LNG market developing, with buyers switching around between various sellers and owning and chartering tonnage, as happens in the oil market. Gas is just too expensive to move. Even moving it from Algeria to Northern Europe involves freight, liquefaction and regasification costs that absorb half the value of the gas in northern Europe. Where the distances are longer, the proportion of the final value that is left for the producer is even smaller.

The truth is that it is only the huge jump in oil prices in 1973-74 that has made feasible many of the LNG projects under discussion now. Gas prices have followed oil prices up so that it is now feasible to consider, for instance, liquefying natural gas at the Gulf and moving it to Japan, whereas previously nothing could be done with it except to flare it off. Now, besides LNG, gas producers are considering the still more complex processes of converting gas into ammonia and possibly (the next stage) into petrochemical fertilizers, provided they overcome problems of marketing the ultimate produce and constructing such complicated plants in areas lacking in infrastructure of all kinds. Another possibility is to convert the gas into methanol, a fuel that can be shipped in ordinary tankers (not the refrigerated LNG ones) but is more expensive to produce.

Even so, despite the jump in oil prices, forecasts of 1980 and 1985 LNG trade from observers like H.P. Drewry (shipping consultants) of London are less rosy now than before the oil price jumps. Pipelines are looking increasingly attractive; the costs of LNG plants and tankers have soared too; technical problems have slowed the building of some of the new large-scale projects; and perhaps most important, there is growing recognition of the inherent economic and financial problems in long-distance gas trade.

Huge capital investment is required. For instance, the planned LNG plant in Malaysia (Sarawak) is likely to cost $1 billion. LNG tankers now on order come out at around $150 million each, and will cost $60,000 a day to operate. Such investments make sense only if oil prices stay above a certain level. The old-style fixed-price gas contracts gave security to the producer, enabling him to raise loans for his plant and ships, or pipeline. The risk that oil prices might fall was ostensibly borne by those who bought the gas on long-term contract at fixed prices. But with the jump in oil prices, most of these old contracts have been renegotiated, including the Soviet and Dutch pipeline contracts and some of the British North Sea ones, as well as virtually all LNG ones.

Now almost all international gas prices are linked to oil prices. This however leaves the producer exposed to the risk of a fall in price, a risk his bankers would look on with disapproval. In turn, producers have tried to limit their downside risk by inserting floor prices into their contracts. In theory the gas buyer is then left in a painful "heads you win, tails I lose" situation, having to pay more for his gas if oil prices rise, but stuck with expensive and over-priced gas if they fell below the agreed contract floor-price, which may itself be indexed against normal inflation.

## Flexible Terms

Because such large sums of money are involved, buyers and sellers bind themselves tightly together by contract. Although piped gas has been swapped (for
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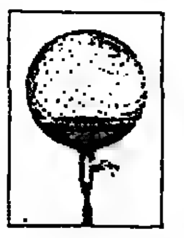


# Oil, the Major Supplier, Is Now a Political and Economic Weapon

...DON (IHT).—Oil is the ...rgest single source of ..., meeting 45 per cent of ...orld's energy requirements. ...e same time oil—and its ...carbon partner, gas—are ...nearest to exhaustion ...g the world's major energy ...s.

...lance at the statistics, spec-... by nature, make the ... First, let us see, the fig-... for "published proven" oil ...es as estimated by the "Oil ...as Journal" in December ... recognizing the gap—which ... be considerable—between ...n" and "recoverable" re-... for which even a guess ... be greatly misleading:

| | Bill. tons | % share of total |
|---|---|---|
| ... | 5.1 | 5.6 |
| ...a | 1.1 | 1.2 |
| America | 5.0 | 5.5 |
| ...rn Europe (...nly N. Sea) | 3.4 | 3.8 |
| ...e East | 50.1 | 55.5 |
| ... | 8.7 | 9.6 |
| ...R. | 11.0 | 12.1 |
| ...n Europe | 0.4 | 0.5 |
| ... | 2.7 | 3.0 |
| ...Eastern ...sphere | 2.9 | 3.2 |
| ...LD | 90.4 | 100.0 |
| ...LD (except ...R., East ...pe, China) | 76.3 | 84.4 |

... 1975, a year in which oil ...mption declined overall un-... the combined effect of an ...mic recession and previous ...s price explosion, total world ...mption was just over 2.7 ...n tons.

... on the basis of the "publish-...roven" reserves, the world ... run out of oil in 44 years ... at last year's relatively low ... of consumption.

... course, forecasts cannot be ... on such simple arithmetic. ...e the consumption of oil has ... again resumed an upward ... (OPEC estimates a 50-per-... rise between now and 1990), ... discoveries are bound to ... the proven reserves. It ..., however, be noted that ... discovery curve has been ... or less flat since the 1950s, ... world demand had, at least ... the Middle East war, es-...ed.

...tween 1965 and 1973 world ...onsumption increased at a ...of more than 6 per cent; in ...Western world at a rate of ...er cent. Although it fell ...ly in 1974 and 1975, the de-...n rate still exceeds known ...ions to reserves.

... a year of economic stagna-... in a world still under the ...atic influence of the quin-...g of crude oil prices, the ...d States, with a pro-person ...y consumption almost three ... that of Western Europe and ...nd-a-half times that of ..., managed net imports of ... 300 million tons, 60 mil-...ons more than Japan which ...tually without oil reserves. ...stern Europe, with North ...esources about to come on stream in quantity, imported over 630 million tons, which is expected to reduce sharply when the United Kingdom and Norwegian sectors of the continental shelf are in full flow, in the 1980s. Even so, peak production is unlikely to exceed 220 million tons in any one year, let alone the 300 million tons estimated by the most optimistic of forecasters Prof. Peter Odell.

This means that even in the unlikely event of oil consumption remaining at last year's depressed level, Western Europe would still have to import about two-thirds of its oil requirements. As analyzed in some detail in other articles in this survey, the elbow room for significant changes in the oil economy of Western Europe is slight in the medium term and part of the North Sea yield will go merely toward meeting additional demand.

In the United States, Project Independence inaugurated by ex-President Richard Nixon in the aftermath of the Middle East war has, partly because of the price policy, never got off the ground. The country, once the world's leading producer, is importing over 40 per cent of its oil requirements and is able to maintain a consumption reserves ratio of only 1 to 7. The reserves by the way include Alaska which is about to come on stream.

While oil cannot be considered in isolation as an energy source—the development of coal deposits (much larger than oil or gas), of natural gas, nuclear and hydroelectricity and of other as yet untapped sources are bound to have an impact on supplies and prices—its major contribution to world energy needs is likely to continue for some decades yet. So is its impact on the world economy—as the Middle East war demonstrated so dramatically. But the balance of advantage has clearly shifted to the producers who have openly declared their intention to establish what they call a "new economic order" in what is now a sellers' market.

## OAPEC

OAPEC ("A" stands for Arab), a group within the group, possesses over 50 per cent of the world's total known reserves. One key country in this group, Saudi Arabia, alone has almost 20 per cent of the world's known reserves; it contributed 13 per cent to the world's oil production last year and transacted around a quarter of world trade in oil.

The politics of OPEC and the Middle East, their influence on the fortunes of Western economies, costs and prices are discussed in other articles in this survey. It is worth noting here though that the obvious conflict of interests among members of OPEC—and even OAPEC—are having a vital bearing on rates of depletion and, above all, on prices. This will be very much in evidence at the next price-fixing session, at Qatar later this month.

Some of the major producers, Saudi Arabia in particular, with relatively small populations but large reserves, would obviously prefer to conserve supplies. Oil is their only significant natural resource: their capacity to absorb huge revenues and use them for internal development is limited; in times of world inflation and reducing money values, oil is one asset which is not likely to lose its value in the longer term.

Other OPEC members, notably those with larger populations and ambitious plans for economic and social advance—Indonesia, Nigeria, Iran and Algeria are cases in point—have altogether different objectives. Some can already see their trade surpluses turn into deficits—the conservation of reserves is secondary to the quick exploitation of the sellers' market which includes a substantial price rise in crude.

While price has obviously a major bearing in the use of oil in the economy, demand is inelastic in the sense that—as the Middle East crisis has shown—even such a spectacular rise in price can lead to only relatively small reductions in consumption while individual producers (Saudi Arabia, for instance, cut production by one-sixth between 1974 and 1975) can afford to reduce supplies in the knowledge that others, more dependent on the oil revenues, will partially fill the gap.

This, coupled with the avowed aim of the producers to acquire a majority stake in national companies dominated by the "oil majors," introduces a new element in the world energy equation (discussed in detail in one of the leading articles in this survey). It has also added a twist to the search for additional supplies as well as given an impetus to the tapping of sources other than wells, onshore and offshore, such as shale and tar sands.

The production/consumption table has shown that the Soviet Union is already a substantial exporter of oil, with only just over half its surplus going to the rest of Communist Europe. Western Siberia particularly the Tyumen oil and gas region, has resources no one has even tried to estimate but their exploitation is hampered by enormous infrastructure and distance-to-markets problems. One student of Siberia suggested recently that "the result of little more than a decade of active prospecting and exploitation of the western Siberian energy reserves is that the Soviet Union could become the richest country in the world today for prospected reserves of oil and natural gas and raw material for the Soviet petrochemical industry."

The use of oil as a political and economic weapon has already been demonstrated by the Arab countries and the reaction of the Western nations through agencies such as the International Energy Agency and the European Commission. There is no reason to doubt that the Soviet Union would similarly use it once the Siberian resources, at present modestly exploited and mainly for domestic use, become available for the export markets.

On the other hand, tar sands and oil shale are largely located in the Western world, primarily in North America. The tar sands of Alberta, Canada, are estimated to contain 300 billion barrels of recoverable oil. Exploration is being carried out by a U.S.-Canadian consortium: but in the view of Dr. M. L. Slim Sharrah, senior vice-president of Conoco (a partner in the consortium), the price of crude from the sands would be about $27 a barrel, more than twice the present average price of crude.

World shale reserves are believed to be even larger: in Scotland, for instance, shale was mined until as recently as 1962 when it was discontinued on economic grounds. It is fueling power stations in the Soviet Union where it is also a base material for gas production. China also has large reserves: but biggest deposits are believed to be in the United States, where the tar sands of the Rocky Mountains alone are estimated to hold 600 billion to 1,000 billion barrels of oil. They were probed but abandoned by a U.S. consortium in 1974 on economic grounds: according to Dr. Sharrah, the cost would have been around $24 a barrel, about twice the average cost of oil.

Coal is yet another source of synthetic oil, used particularly by the Germans, with meager oil but substantial coal reserves, before and during the Second World War. On the basis of current processes, Dr Sharrah's estimated price is $24 per barrel.

Nevertheless, with coal resources many times those of oil and gas and, like oil shale and tar sands, much of it located in the Western Hemisphere and in Europe, oil—and gas—from coal may be considered a strategic reserve in an economic as well as a political sense.

The world has already witnessed a major upheaval in energy economics as a result of the oil price increases three years ago. The brief embargoes imposed by Middle East countries on certain consumers, including the U.S. and the Netherlands, have alerted the West to the danger of political action. Resources that may be uneconomic to exploit today or left untapped on environmental grounds could provide a partial though admittedly temporary solution to the world's thirst for oil which is not only a major energy source but also the base material for important industries such as petrochemicals, synthetic textiles and rubber and even food.

—A.H.

# North Sea Gas and Oil Help to Ease Dependence

LONDON (IHT).—In global terms, the North Sea harbors a relatively small—between 3 and 3.5 per cent—proportion of the world's total oil and gas reserves. In terms of the countries enjoying the benefits of the discoveries, the United Kingdom, Norway and the Netherlands (if one includes the adjoining onshore gas field of Groningen), the North Sea find is a boon. It is proportionately less so for Western Europe as a whole, although it does bring important strategic and economic advantages.

But even for the three countries most directly affected, the impact varies. In Norway, for instance, the state through its instrument Statoil has been a participant from the start. In the United Kingdom on the other hand, the British National Oil Corporation (BNOC) is a recent arrival on the scene and is still in throes of negotiations with some of the major oil companies such as Esso, Shell, Mobil, Chevron about participation, with agreement reached with only a few, including Gulf, Conoco, BP (provisional) and Burmah (partial).

In the Netherlands, the European Community's largest natural gas producer, participation is optional for the government: in Britain in respect of the first four exploration licensing rounds it is optional for the companies, with only the fifth being obligatory for the latter. Nevertheless, BNOC hopes to have direct control over at least a quarter of oil produced in the United Kingdom sector of the North Sea in 1980 (the year of anticipated self-sufficiency) and influence the disposal of a further quarter.

Another, perhaps more important difference is in the rates of exploitation of this important resource. The United Kingdom wants to push ahead as quickly as possible to alleviate her domestic economic problems, particularly those of balance of payments and public expenditure. For even though this year's harvest of the North Sea, with six fields (including two major ones, Forties and Brent) on stream, is expected to meet at least 15 per cent of the country's oil needs, oil imports will still cost about $8 billion—the main reason for the continuing large balance of payments deficit.

On the other hand if, as confidently expected, production reaches the 100 million tons mark in 1980, it will not only satisfy volume requirements but by judicious mixture with Middle East oil, the high-grade North Sea product should earn extra currency more than offsetting the cost of lower grade imports. As Tony Benn, the Energy Secretary, has pointed out, oil exports are generally paid in dollars and are consequently unaffected by the sliding pound sterling.

As for revenues, the British government expects a net total impact of around $9 billion on the gross national product, through royalties, taxes and earnings in 1980 and possibly as much as $25 billion in 1985. Up to last year when the oil began to flow, that impact had been negative, with a great deal of currency expended in buying equipment and services from abroad.

Total production in the United Kingdom sector may rise in the 1980s to anything between 130 million and 150 million tons (according to optimistic experts, it could be as high as 200 million tons). Then, depending on the exploitation of new discoveries, including future ones, output should level off before tailing off in the late 1980s.

Norway, with a population of under 4 million (compared with the United Kinkdom's 55 million) is already self-sufficient in oil and, like Britain, in natural gas. Unlike Britain, however, it is more anxious to conserve its major new energy resource by slowing down the rate of exploitation, particularly as hydro-electric power still meets two-thirds of the country's energy requirements.

Although Norway produced oil years before the United Kingdom, this year's output (at around 10 million tons) will be well behind Britain's and the government has put off until 1978 the start of exploratory drilling north of the 62d parallel. Revised Statoil estimates put the 1980 production target at 58 million tons, rising to 68 million tons in 1985 and peaking at little over that in 1987. The licensees' own estimates are slightly higher.

Nevertheless, Norway will become a substantial exporter of both oil and gas (long-term agreements for the latter have already been negotiated with the West German and British governments) and its not altogether unpleasant problem is the absorption of large new revenues in the blood-stream of a prosperous but small economy.

Nor is the government policy of slowing down the rate of exploitation universally popular. Manufacturers of exploration-related equipment such as drilling-rig and production-platform builders have run short of orders and are having to pay off large numbers of workers—as is the case on an even larger scale in the United Kingdom, with little chance of building such huge structures outside the North Sea.

Natural gas is playing an increasing role in the energy pattern of most countries bordering on the North Sea and no more so than in the Netherlands, 55 per cent of whose energy needs were met by gas last year. In addition to the onshore field of Groningen, a production platform has now been ordered for the first of the offshore fields, with evidence of more to come.

The country's energy economy is a two-fuel one, oil and gas, with gas exports roughly paying for oil imports which, in any case, are a source of revenue through oil traffic at Rotterdam harbor, Europe's largest oil port. This may be one reason why the share of gas is likely to decline in the Netherlands' energy pattern, in the 1980s.

One of the important by-products of the North Sea discoveries has been the considerable boost to the engineering, shipbuilding, electrical, steel and construction industries as well as to port developments and other services in the countries most concerned.

The effect of a slowdown in exploration and development in the Norwegian sector on local industry has already been mentioned. In the United Kingdom, where around 30,000 workers are directly or indirectly employed in North Sea activity (the majority in Scotland), the downturn has been experienced mainly in the construction of platforms, jackets and modules, with two major platform yards completely without work and two others still awaiting their first contract, as well as in growing unemployment figures.

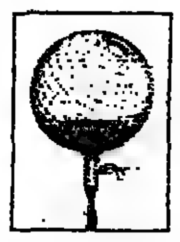
As for the other areas of offshore services and supplies, J. Dickson Mabon, the United Kingdom Energy Minister of State, has pointed to the $8 billion a year offshore market worldwide, of which the U.K. market (at under $2 billion last year) was only a fraction.

The one consolation British suppliers have is that their share of the local offshore market is on the increase—from only a minute share in the early 1970s and 40 per cent in 1974 to 52 per cent last year.

In Britain, prediction is more hazardous because of all the discoveries—and there have been 35 in the past two years alone—only 15 have so far been declared commercial, including the smaller United Kingdom segment of the vast Statjford Field (the major part is in the Norwegian sector) and the Murchison Field announced earlier this year.

There was a hiatus in exploration and development while the Labor government made up its mind about the new taxation regime and state participation. The escalation of development costs, partly caused by inflation and partly by the devaluation of the pound sterling, has also led to schedules being revised. Nevertheless according to BNOC chairman Lord Kearton (not refuted by other operators), a return of 30 per cent-plus in most oil fields should be an attraction to investment. BNOC itself hopes to be profitable by 1980, by which time, BP's Forties Field, the first of the major fields to come on stream, should have repaid all its development costs.

—A.H.



# Environment Vs. Economic Growt

PARIS (IHT).—It was well before the oil crisis that environmental considerations began to play a role in the energy field. As the world became richer, people began to question whether it was worth sacrificing a certain quality of life just to assure a certain quantity of wealth. Energy was a major factor in economic growth, but all too often its production involved serious environmental and ecological damage and the emissions of chemicals which were unsightly and damaging to health. So it was hardly surprising that energy producers were a major target of environmentalist feelings.

Opposition was raised to the flooding of valleys for hydroelectric schemes, to the scarring of landscapes through strip-mining and to the oil-pollution threats posed by offshore activities and tanker transport, to the use of rivers for coal-mining operations and nuclear power stations, to sulphur dioxide and particulate emissions from oil refineries, coal and oil plants, to the nitrogen oxide fumes from cars and trucks and to the radioactive dangers of nuclear power plants. Developing countries might still feel that pollution was a reasonable price to pay for higher economic growth, but for an increasing number of industrialized countries that price was becoming too high.

However, since 1973 the position of the environmentalists has become harder to defend. With the increase in energy prices it has become much harder to absorb the extra cost of meeting environmentalist requirements and with economic growth well below the pre-crisis era the choice may no longer be between a polluted society with high growth and a non-polluted one with a slightly lower one, but between a polluted society with low growth and a non-polluted one with no growth at all. For not only are the environmentalist groups making it extremely difficult for consumer countries to develop their own indigenous energy resources and thereby reduce their dependence on imported oil, but they are threatening to create an eventual energy shortage, which could reduce growth altogether. During the last two years the dole queues have brought a touch of reality to the academic debate between growth at all costs and no growth at all. It would be a pity if in their concern for the quality of life environmentalists placed such obstacles on economic growth that the very basis for that life-style were destroyed.

## Strong Attack

The country which could play a key role in developing indigenous energy resources happens to be the place where environmentalist feeling is the strongest. Already before the energy crisis U.S. environmentalists were blocking attempts to build oil refineries and oil ports in the east of the United States, had forced the government to introduce tough controls on automobile emissions, had held up the award of offshore exploration concessions and posed problems for utilities and coal companies; but since 1973 they have slowed down development of the Alaskan oil fields, prevented the opening up of strip-mines in the west of the United States and brought the country's nuclear program to a virtual standstill.

The U.S. example has been taken up quickly by other countries, especially those with a high standard of living. In Sweden it is proving difficult to obtain authorization for new hydroelectric schemes and the nuclear program is under fire, in Norway North Sea development is coming under strong attack, in Britain nuclear fuel enrichment programs and fast-breeder reactors are a subject of controversy, in France, West Germany and Japan ambitious nuclear expansion programs are being subject to increasing harassment, while in the Benelux countries and Denmark they have been halted altogether.

It would be unfair to place all the blame for delays in energy development on the environmentalists. In many fields governments have in fact relaxed environmentalist regulations in response to the economic recession, and slowdowns in energy programs have been due more to the flattening out of energy demand growth, financing problems and the failure of governments to define their energy policies than to any environmentalist pressures. But as the economic situation begins to improve there is a danger that excessive concern for environmental protection could place consumer countries in a dangerously vulnerable energy situation.

Of course, it is extremely healthy that the general public is ready to question energy choices. Many people would claim that energy decisions are really too important to be left to the energy experts. Experience has shown that environmental regulations do not necessarily add much cost to energy production and that in some cases the application of such regulations actually forces energy producers to adopt more efficient methods. It is arguable that industrialized countries can still look forward to economic expansion, even with higher energy costs, so long as wealth is redistributed. With no real prospect of an energy shortfall for another thirty or forty years, there may well be a case for paying more now for energy and thereby speed up the development of new energies such as solar rather than rush into the development of conventional energy sources like coal or nuclear which could result in irreparable damage to the environment. If there are doubts about nuclear, any sacrifice might be worth accepting to avoid a nuclear holocaust.

But if the debate concerning environment and energy is a healthy one, it is essential that it be well-informed and rational. Unfortunately this is not always the case. Until a few years ago environmentalists could still be dismissed as individualistic cranks who were just not prepared to pay the price of living in society. In some cases this dismissal was justified in that many members of the movement merely wanted to return to a more simple pre-industrial society.

But today governments and energy producers are being faced by an increasingly powerful movement which is taking on a radical political character. As a result, it is becoming increasingly difficult to distinguish between a genuine protest over environmental factors as such and general opposition to the government in power and to giant corporations—whether it be from people who resist change or are seeking it. The danger is that energy decisions may now be taken for the wrong reasons.

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BUSINESS

INTERNATIONAL

Herald Tribune

FINANCE

Published with The New York Times and The Washington Post

PARIS, THURSDAY, DECEMBER 9, 1976



## ofit Rises 0 Per Cent U.K. Firm

### er Companies ort Increases

NDON, Dec. 8 (AP-DJ).— rofit rose by 36.8 per cent eneral Electric Co., of Bri- in the first half ended 30, the company reported

which is unrelated to al Electric of the United said its earnings totaled million in the six months rom £42.1 million in the period last year.

s rose to £963 million from million. GEC set an in- dividend of 1.82 pence, up 1.65 pence.

is a leading manufacturer avy electrical power and mmunications equipment, as as components and con- products.

company said it plans a mization of its capital ure and will detail the early next month.

nings per share for the first otaled 10.35 pence, up from ence, GEC said.

**Pilkington Net Soars**

ther large British concern, gton Brothers Ltd., said to- hat its net profit soared to million in the half year Oct. 2 from £17,000 in the earlier period.

glass manufacturer said totaled £191.4 million com- with £129.7 million.

ington declared an interim end of 5.119 pence, up from pence.

anwhile Rank Hovis Mc- all Ltd., the baking and food rn, reported earnings total- 18.8 million in the year end- ept. 4, up from £13.2 mil- last year, while turnover rose 921 million from £793 mil-

e company declared dividends he year of 2.945 pence, up 2.677 pence last year.

**VEBA Earnings Rise**

SSELDORF, Dec. 8 (AP- Consolidated net profit of a AG in the first nine ths rose to 152 million che marks from 86 million in the year earlier period, energy and oil company said

ternal turnover totaled 20.5 n DM compared with 18.1 n DM.

## oney Growth en at 9.2% Germany

ANKFURT, Dec. 8 (AP-DJ). e average growth of West any's central bank money y will probably be 9.2 or 9.3 ent by the end of the year, ard Gleske, a Bundesbank tor, said today.

noted that this growth exceed the Bundesbank's of 8 per cent, but said it ponded to economic devel- nts and was not a cause for rn.

Gleske said, however, that entral bank's goal in 1977 be to keep bank liquidity and to dampen any infla- y tendency. He declined to any concrete indication of target the Bundesbank set for money supply h in 1977, saying the goal be set at the central bank il's meeting Dec. 16.

ions observers have put the ble goal of the Bundesbank ween 6 and 7 per cent.

central bank money supply total of cash in circulation bank deposits subject to um reserve requirements the measure of the money upon which the Bundes- bases its credit policy.

**5.5% Growth Seen**

Gleske said the Bundes- stimated real growth of the German economy in 1976 be 5.5 per cent, above pro- s in the beginning of the He added that inflation, showed a year-to-year rise per cent in November, has well below original pro- ns. In terms of monetary he said, the Bundesbank lered the year successful.

stressed, however, that the f the Bundesbank would be ure stability in the German ary situation. Responding ious calls from foreign of- that the time had come Germany to reflate, Mr. said stable economic and lasting reduction of ployment would come only price stability.

arding the outlook for 1977, leske said a further reduc- n inflation would depend on the outcome of wage ations and the effect of security deficits on the fed- deficit.

Gleske noted that the large n exchange inflows result- om currency unrest, which d 8.5 billion marks from the ing of July to the realign- of the currency snake in October, had ceased and in there had been 4 billion of foreign-exchange out- since the realignment.

# FINANCIAL NEWS AND NOTES

### *Creusot-Loire to Lead in Reactors*

Creusot-Loire, a unit of the Empain-Schneider Group, is to become the leader among French constructors of fast-breeder nuclear reactors under the terms of an agreement worked out with Alsthom-Atlantique. Creusot will have a 51-per-cent stake in Ste. Novatome, the company in charge of developing the high-speed reactors, instead of 40 per cent as originally planned. The French Atomic Energy Commission will have a 34-per-cent stake, while Alsthom is to hold 15 per cent. In compensation, Alsthom is to increase its cooperation with Creusot-Loire in the field of hydroelectric turbines. Alsthom-Atlantique recently acquired the turbo-alternator division of Cie. Electromécanique, a unit of Brown Boveri of Switzerland.

### *Toyo Kogyo Sees Pre-Tax Profit*

Toyo Kogyo expects to report a profit before tax and special items of over 3 billion yen (about $10 million) for the fiscal year ended Oct. 31, compared with the deficit of 17.32 billion yen in the preceding fiscal year. A company spokesman says sales are expected to total 590 billion yen, an increase of 18 per cent over the 496.48 billion of the previous fiscal year. The company sold 721,000 motor vehicles, an 11.8-per-cent increase, despite an 18-per-cent decline in domestic sales to 274,000 vehicles. This was more than offset by a 42-per-cent increase in export sales to 447,000 vehicles.

### *AEG Hopes to Pay Dividend in '77*

AEG Telefunken still hopes to pay a dividend for 1977 but does not intend to make any payout form reserves, says managing board chairman Walter Cipa. He says the company's performance this year has improved considerably from 1975 but is still not satisfactory. AEG's financing means are still ample, he adds, as credit lines totalling 1.8 billion deutsche marks, of which 600 million DM is long term, have not been touched yet. AEG has already said it does not plan a dividend for this year. Last year the parent company lost 106.8 million DM and Mr. Cipa says it is completely open whether second-half earnings this year will compensate for first-half losses.

### *FPC Staff Backs Arctic Gas Pipeline*

The U.S. Federal Power Commission staff has recommended acceptance of the Arctic Gas project's plan for a $9-billion pipeline across Canada to move natural gas from the Alaskan North Slope to U.S. markets. A staff brief called the 15-company consortium's proposal "vastly superior" to competing proposals by El Paso and Northwest Energy Co. El Paso wanted to build a line across Alaska parallel to the Trans-alaska oil pipeline, liquefy the gas and transport it by tanker to a West Coast port in the lower 48 states. Northwest proposed a pipeline route along the Alaska highway to British Columbia. The FPC staff made its recommendations in a brief filed with an FPC administrative law judge now considering the three proposals. A decision is due next month, after which the commission is expected to make a recommendation to President Jimmy Carter by May 1. The president is required by law to select a route by Sept. 1 and propose it to Congress, which would have 60 days to ratify the decision.

### Rebates of Indirect Taxes at Issue

## *U.S. Court Suits Threaten Trading Rules*

By Edwin L. Dale Jr.

WASHINGTON, Dec. 8 (NYT). —Several time bombs in the foreign trade field are ticking quietly away, timed to explode during or shortly after the transition to a new presidency.

The one that contains the greatest potential disruptive effects—on U.S. importers and retailers, on U.S. relations with Japan and other industrial countries, and on trade policy generally—is the least known. The bomb is ticking in a New York courthouse, site of the Customs Court, and a decision could come at any time.

At issue is whether the Japanese practice, in effect for years, of rebating for exports a "commodity tax," which is much the same as a manufacturer's excise tax, amounts to a "bounty or grant" within the meaning of the 80-year-old U.S. countervailing duty law.

**Suit by Zenith**

Zenith Radio Co., which has been struggling against Japanese competition in various ways over the years, has filed suit, claiming that the tax rebate is indeed a subsidy and, therefore, must be offset by a special countervailing duty.

The suit covers all consumer electronic products — television sets, radios, citizens band radios, tape recorders, stereo sets. Imports from Japan are now running at a value of $1.5 billion a year.

Whatever the customs court may find, the case is almost certain to be appealed, by Zenith or the government. But there is a major, though little known, problem.

If the court, as some government trade officials fear, rules in favor of Zenith, and assuming the government appeals, there will be an immediate "suspension of liquidation" of duties on the affected products. This means that importers will be unable to settle the final duties they will owe, pending the long process of appeal.

They will not know what duty will be eventually payable. The risks will be so great that some importers say they will simply stop buying these products.

This would be disruptive enough. But the implications are even greater.

For 30 years the international trading rules established by the General Agreement on Tariffs and Trade have held that rebates of indirect taxes such as the Japanese tax—as distinct from direct income or profits taxes—are not subsidies. If the United States now unilaterally declares that they are subsidies, much more than Japanese television sets will be involved.

"This case is a real sleeper," says Peter Suchman, deputy assistant secretary of the Treasury in charge of trade matters. "It has more potential for harm to the international trading system than all the rest of the trade cases put together."

Pending in the same customs court is another suit, filed by United States Steel Corp., alleging that the longstanding rebate on exports by European Economic Community countries of their "value-added" tax also amounts to a subsidy within the meaning of the countervailing duty law. If the court finds affirmatively, steel imports from Europe worth about $2 billion annually would be immediately affected, with the same problem of "suspension of liquidation" of duties. Eventually all manufactured goods exported from Europe could feel the impact and the world's trading rules would be thrown into confusion.

**Escape Clause' Petitions**

Apart from the cases in the Customs Court, the U.S. International Trade Commission is moving toward three major decisions in "escape-clause" petitions under the 1974 trade law. While actual cases of import restraint under this and other provisions of the law have been very few so far—the chief one being stainless and other specialty steels—the three pending cases pose a new test of whether the United States will move in a restrictive direction. Viewed another way, they pose a test of whether the 1974 law gives a genuine chance of relief for industries that can show damage from imports.

The cases are shoes, color television sets and sugar. The commission is considering shoes for a second time, under orders from the Senate Finance Committee. Last year it unanimously found that imports were damaging the domestic industry but, because its members could not agree on the relief to be provided, President Ford was able to deny any relief and Congress could not override his decision.

## OPEC to Hold Oil Price Talks Next Wednesday

VIENNA, Dec 8 (Reuters).—Oil-exporting nations will hold a price-fixing conference as planned at Doha, Qatar, on Dec. 15, a spokesman for the Organization of Petroleum Exporting Countries said today.

Arrangements are going ahead to start the conference next Wednesday, despite rumors of a postponement, he said.

OPEC secretary-general M.O. Feyide and other officials will leave the organization's Vienna headquarters for Qatar at the weekend, information officer Hamid Zaheri said.

There had been doubt until today wheter the conference would start on schedule, since it would clash with a planned meeting in Paris between industrialized nations and countries producing raw materials. But sources said the Paris meeting now appeared likely to be postponed until the new year.

## Company Reports

Revenue, Profits in Millions of Dollars

**Carrier Corp.**

| Year Oct. 31 | 1976 | 1975 |
|---|---|---|
| Revenue | 1,110.00 | 947.9 |
| Profits | 34.73 | 13.95 |
| Per Share | 1.41 | 0.54 |

**Deere & Co.**

| Fourth Quarter | 1976 | 1975 |
|---|---|---|
| Revenue | 714.3 | 813.4 |
| Profits | 36.07 | 41.40 |
| Per Share | 0.60 | 0.69 |
| Per Share dil. | 0.57 | 0.68 |
| Year | | |
| Revenue | 3,133.8 | 2,955.2 |
| Profits | 241.57 | 179.07 |
| Per Share | 4.04 | 3.01 |
| Per Share dil. | 3.89 | 2.98 |

**Firestone Tire & Rubber**

| Fourth Quarter | 1976 | 1975 |
|---|---|---|
| Revenue | 1,020.00 | 1,040.00 |
| Profits | 16.08 | 58.57 |
| Per Share | 0.28 | 1.03 |
| Year | | |
| Revenue | 3,940.00 | 3,720.00 |
| Profits | 96.00 | 134.3 |
| Per Share | 1.68 | 2.36 |

**Oscar Mayer**

| Fourth Quarter | 1976 | 1975 |
|---|---|---|
| Revenue | 315.8 | 299.0 |
| Profits | 13.76 | 7.47 |
| Per Share | 1.44 | 0.78 |
| Year | | |
| Revenue | 1,133.1 | 1,054.6 |
| Profits | 33.37 | 26.95 |
| Per Share | 3.50 | 2.83 |

**Tesoro Petroleum**

| Fourth Quarter | 1976 | 1975 |
|---|---|---|
| Revenue | 255.06 | 230.52 |
| Profits | 9.07 | 5.3 |
| Per Share dil. | 0.44 | 0.46 |
| Year to Sept. 30 | | |
| Revenue | 1,070.00 | 815.79 |
| Profits | 33.8 | 42.93 |
| Per Share dil. | 1.60 | 3.6 |

**Utah International**

| Fourth Quarter | 1976 | 1975 |
|---|---|---|
| Revenue | 275.01 | 179.74 |
| Profits | 52.79 | 24.90 |
| Per Share | 1.67 | 0.79 |
| Year to Oct. 31 | | |
| Revenue | 944.26 | 686.26 |
| Profits | 173.82 | 135.40 |
| Per Share | 5.67 | 3.54 |

## *Simon Seen Returning to Salomon Bros.*

### Treasury Chief Says Decision Not Yet Made

By Philip Shabecoff

WASHINGTON, Dec. 8 (NYT). —Treasury Secretary William Simon is planning to return to Salomon Brothers, the New York investment banking firm he left in January, 1973, to join the Nixon government, friends of Mr. Simon within the administration said yesterday.

Asked about the report, Mr. Simon said by telephone, "I've made no commitment. It would not be proper for me to even have any substantive discussions until I leave Washington. I can honestly say I have not made a decision."

William Salomon, managing partner of Salomon Brothers, said that he hoped Mr. Simon would rejoin the firm. "We want him back," Mr. Salomon said in a telephone interview, "but we've had no discussions."

Mr. Salomon said if Mr. Simon did return to the firm it would be as "an important partner."

"Because he has been Secretary of the Treasury, he obviously would be more important to us than he was before," Mr. Salomon said.

Mr. Simon, 49 years old, also plans to remain active in public affairs, according to his friends. His name has been mentioned as a possible candidate for the chairmanship of the Republican National Committee. He has also discussed a possible run at the presidency in 1980 with some members of the Republican party, according to an informed Treasury source.

Mr. Simon was one of seven partners on the executive committee of Salomon Brothers when he was tapped by former President Nixon to become deputy Treasury secretary. At the time, he was in charge of the firm's government and municipal securities department and, according to published reports, earning $2 million to $3 million a year.

### *'Straddle' Trades Labeled Uncompetitive*

## N.Y. After-Hours Trading In Silver Hit by U.S. Unit

NEW YORK, Dec. 8 (AP-DJ). —The days of "straddle" trading silver futures on the Commodity Exchange here after normal market hours may be numbered.

Members of the Commodity Futures Trading Commission reviewed yesterday a report prepared by the staff of the federal agency's trading and markets division that says the practice "does not appear to meet the standard of an open and competitive trading method."

A "straddle" trade (also called a "spread" or a "switch" trade) is simultaneously buying and selling futures contracts in the same commodity with different expiration dates. It often is used by traders as a means of deferring or reducing their income taxes.

The Commodity Exchange silver-futures market normally ceases trading at 1915 GMT. Straddle trading frequently extends well beyond that time. On Nov. 15, for instance, straddle trading continued until nearly 2300 GMT.

The commission, in effect, gave its staff authority to meet and discuss the findings with exchange officials, who then will decide whether the practice should be stopped or modified and, if so, how. Thomas Russo, division director, said the report "was the first step toward elimination" of after-hours trading. Commission chairman William Bagley said that "as of now, with the facts before us, we don't look with approval on the practice." The staff was given up to 40 days to report back to the commission.

Lee Berendt, president of the exchange, said he preferred to "wait and see the report before commenting" on its findings.

The study says exchange officials have argued on behalf of after-hours straddle trading because activity during normal hours is so hectic on days of large trading volume. After-hours straddle trading is not allowed in the other sizable silver futures market on the Chicago Board of Trade, however.

The study found that although the volume of after-hours straddle trading has not been substantial, it increased significantly in the fourth quarter last year, accounting for as much as 36 per cent of the total volume of straddle trades in the months when trading for tax purposes usually occurs.

The staff's study also noted that professional traders do not have to enter their straddle-trade orders before the market closes as required for brokers' customers; after-hours straddles do not have to conform with the price differentials between futures delivery months that are established during the session, and that, in many cases, these price differentials are prearranged.

## New U.S. Accounting Rule Causes Confusion

NEW YORK, Dec. 8 (AP-DJ). —A new U.S. accounting system that establishes uniform standards for foreign currency accounting is bringing loud protests from company executives and causing confusion among the investing public.

The new system, ordered by the Financial Accounting Standards Board (FASB), has necessitated adjustments in the way U.S. concerns convert into dollars and report results of their foreign operations.

Although the ruling became effective last Jan. 1, it has a retroactive effective cause earnings for earlier periods, when presented in financial statements, must be restated as if the ruling were in effect at that time.

As a result, the accounting adjustments have caused profit comparisons with year-earlier figures to differ widely from what they would have been without the FASB ruling.

Quarterly earnings reports have been bouncing about unpredictably ever since Statement 8, as the FASB ruling is called, took effect.

"It will be years before anybody can work with a comparative financial statement with any degree of certainty again," grumbles Herbert Knortz, executive vice-president of International Telephone & Telegraph Corp.

Charles Allen, vice-president and chief financial officer of TRW Inc., says: "Our profit-and-loss statement now depends to a large degree on the political factors that go into the various currency revaluations in foreign countries."

Many companies say their worst problems come from trying to analysts and investors that a big currency conversion loss does not mean they are on the brink of bankruptcy, and a big gain does not mean they are wiping out the competition.

**Firms' Strategy**

As a result of the confusion, companies are beginning to try to smooth out the wild earnings swings that they say arise from Statement 8. The main strategy is to balance the amounts of fixed assets, such as plant and equipment, with liabilities, such as foreign bank borrowings. When these are in balance within a country, no translation gain or loss shows up on the bottom line.

Multinationals have always tried to keep this balance, but Statement 8 has changed the rules. It standardizes treatment of various balance-sheet items.

For example, it requires that long-term debt be valued at the currency rates in effect at the end of each reporting period, rather than at the rates in effect when the debt was incurred.

It also requires that inventories be valued at the rates in effect when the goods were placed in inventory, rather than when they are sold. However, if a currency is devalued, inventories in that country must be written down to reflect the new rate.

These changes have left the assets and liabilities of many companies unbalanced, or exposed to conversion gains or losses whenever the value of foreign currencies changes in relation to the dollar.

**Past Practice**

Many companies used to offset the impact of currency fluctuations on any exposed assets or liabilities by reporting gains or losses only at year-end, and by using reserves to level out such gains or losses over several years. Under Statement 8, currencies must be converted and reported quarterly, and use of reserves is not allowed, so the impact of often-wild quarter-to-quarter currency fluctuations, such as was caused by the recent devaluation of the Mexican peso, are brought directly down to the bottom line.

Statement 8's change in inventory accounting particularly affects retailers. For example, F. W. Woolworth, which has a 53-per-cent interest in its British subsidiary and interests in Mexico, West Germany and elsewhere, feels the violent currency swings in these countries act directly on its profit. For the second quarter, it reported a currency loss of $627,000, compared with a gain of $10.2 million a year earlier, mainly because the deutsche mark strengthened against the dollar.

The Statement 8 restatement of 1975's results added 13 cents a share to year-earlier second period profit, making the comparison look much worse year-to year. But in the third quarter of this year, currency losses were $603,000, and restatement lopped 37 cents a share off previously reported 1975 third-quarter net, making the comparison look much better.

Multinationals with sufficient flexibility to speed up payments by foreign units to the parent are doing so. To lessen conversion exposures, for example, ITT says it is urging all of its foreign units to make "unusual payments" to the parent, including extra dividends, repayment of loans and the like.

**Offsetting Changes**

Companies can try to offset currency conversion gains or losses by buying currency futures contracts. In most cases these are used as insurance, guaranteeing sufficient amounts of a currency to meet obligations at a known price. Many companies say they are shying away from hedging contracts, because the cost, usually a commission of 3 to 5 per cent, is too high.

## Fiat Investment By Libya Called Purely Financial

ROME, Dec. 8 (Reuters).—Libya's $415-million investment in Fiat, announced last week, is a purely financial transaction and the sole concerns are profit and the success of the company, Abdullah Saudi, chairman of the Libyan Arab Foreign Bank said today.

Mr. Saudi told a news conference that he believed the two most important aspects of the deal were the benefit to Italy's balance of payments and the declaration of confidence in Italian industry and the Italian economy which it implied.

He said the two Libyan members on the 15-seat Fiat board intended to take an active interest in the company's operations. "We want to promote the business so there will be more success, more profit and more dividends," he said.

Asked whether political considerations could influence the votes of the Libyan directors if, for example, Fiat decided to build an assembly plant in Israel, he said: "I think you will agree that in any institution, decisions are made by the board, by a majority of votes irrespective of votes against."

## Saudis Ban Foreigners From Owning Firms

AMMAN, Dec. 8 (Reuters).—Saudi Arabia has banned foreigners from owning commercial firms and other businesses in its territory, Riyadh radio reported today.

Quoting the Interior Ministry the report said the ruling will take effect Dec. 22. The report did not say whether the new rules applied to foreign commercial banks and contracting companies.

## *Prices Rise On Wall St. After Slipping*

### Investors Said Seeking Lower-Priced Issues

NEW YORK, Dec. 8 (IHT).—Prices advanced again on the New York Stock Exchange today, overcoming some weakness early in the session as in broad market advance in the near future.

Analysts said investors continue to seek out stocks whose yields have improved relative to bonds due to falling interest rates.

After being in the red most of the day, and down about 4 points by noon, the Dow Jones industrial index closed up 2.49 at 963.18. It was down 1.5 at 3 o'clock.

Volume totaled 24.56 million shares, compared with 26.1 million yesterday. Advancers outpaced decliners by about 970 to about 490.

Paul Bernstein, of Drexel Burnham, said investors have turned to lower-priced issues because of doubts about the ability of blue chips to mount another strong market advance in the near future.

Analysts have lately been "marking down" their estimates on basic industry issues, he said.

Mr. Bernstein also said investors have shied away from growth issues because of worries that currency devaluations and lagging economies outside the United States will limit their earnings.

Electronics issues were mostly higher. IBM rose 2 1/4 to 273, Texas Instruments 1 3/4 to 105, Digital Equipment 1 1/4 to 54 3/8, and Motorola 1 1/2 to 51 3/4, but Burroughs lost 1 1/4 to 88 1/2.

Active McDonald's lost 3/4 to 54 7/8 and Sony tacked on 1/8 to 9 1/8. General Motors, also active, rose 1 1/8 to 73.

Holiday Inns picked up 1 1/8 to 13 1/8 in active trading and Ramada Inns, also active, rose 5/8 to 4 1/4.

Bendix lost 1 3/4 to 42 1/2. It terminated its proposed acquisition of Ex-Cello-O Corp., which lost 2 1/4 to 23 1/4.

## *U.K. Mart Ends Options Project*

LONDON, Dec. 8 (AP-DJ). —The London Stock Exchange announced today that it has decided to cease work "for the time being" on the possible establishment of trading in stock options.

A special committee on options trading will continue to work on proposals to cooperate with the European options exchange which has been proposed in Amsterdam, the exchange added.

# NYSE Nationwide Trading (3 O'clock) Dec. 8

| 1976 High | 1976 Low | Stocks and Div in $ | | P/E | Sls. 100s. | High | Low | 3 p.m. Quot. | Ch'ge prev. Close |
|---|---|---|---|---|---|---|---|---|---|
| 35⅝ | 31½ | ACF Ind | 1.60 | 6 | 50 | 33 | 32¾ | 33 | + ½ |
| 4⅞ | 1⅞ | AJ Indust | | 8 | 146 | 4½ | 4¼ | 4½ | + ⅛ |
| 24⅜ | 17⅞ | AMF Inc | 1.24 | 9 | 482 | 19⅛ | 19 | 19 | |
| 17⅜ | 12¾ | APLCorp | 1 | 5 | 16 | 14½ | 14⅜ | 14½ | |
| 60⅝ | 44⅝ | ARASv | 1.20 | 13 | 22 | 49⅝ | 49¼ | 49⅝ | + ⅛ |
| 33 | 12⅞ | ASALtd | .80 | | 219 | 23 | 22½ | 22⅞ | + ½ |
| 11¾ | 7¼ | ATOInc | .28 | 6 | 114 | 9¾ | 9¼ | 9¾ | + ⅜ |
| 55⅛ | 37¾ | AbbtLab | .83 | 16 | 148 | 48⅛ | 47¾ | 47⅞ | — ⅜ |
| 10¼ | 8½ | AcmeClv | .50 | 14 | 6 | 8⅞ | 8¾ | 8⅞ | + ⅛ |
| 4½ | 2⅝ | AdmDg | .04 | 5 | 47 | 3 | 2⅞ | 3 | |
| 12⅝ | 9⅞ | AdmEx | .91e | | 59 | 12 | 11⅞ | 12 | + ⅛ |
| 5¼ | 3¾ | AdmsMill | | 7 | 9 | 4 | 4 | 4 | — ⅛ |
| 13½ | 7¾ | Addrssg | [illegible] | 16 | 184 | 11½ | 11⅛ | 11⅛ | — ⅛ |
| 35⅛ | 22½ | AetnaLf | 1.20 | 9 | 445 | 34⅞ | 34⅝ | 34⅞ | + ⅛ |
| 52½ | 36¼ | AetnaLf pf | | | 20 | 52 | 51½ | 51½ | — 1 |
| 17 | 9⅝ | Ahmans | .22 | 6 | 233 | 16⅝ | 16½ | 16½ | — ⅛ |
| 6⅞ | 2½ | Aileen Inc | | 60 | 246 | 3⅛ | 3 | 3 | — ⅛ |
| 39¼ | 29⅝ | AirProd | .20 | 14 | 177 | 32¾ | 32½ | 32⅝ | — ⅛ |
| 13⅝ | 11 | AirbnFrt | .60 | 12 | 21 | 13⅝ | 13⅛ | 13⅝ | |
| 34⅝ | 17¼ | AircoInc | 1.15 | 7 | 43 | 29⅞ | 29½ | 29⅞ | + ⅛ |
| 25¾ | 13⅝ | Akzona | 1.20 | 11 | 57 | 14⅝ | 14½ | 14¾ | |
| 15⅝ | 13⅛ | AlaGas | 1.23 | 7 | 3 | 14⅞ | 14¾ | 14¾ | — ⅛ |
| 113¾ | 104½ | AlaPw pf | 11 | | z5660 | 112 | 112 | 112 | — ½ |
| 91½ | 77¼ | AlaP pf | 8.28 | | z760 | 90⅛ | 89½ | 90⅛ | + ⅛ |
| 17½ | 11⅛ | Alaskin | .40e | 6 | 68 | 15¼ | 15 | 15⅛ | — ⅛ |
| 21¾ | 14 | AlbanyIn | .72 | 6 | 2 | 18 | 17¾ | 18 | |
| 8¾ | 5¾ | AlbertoC | .34 | 16 | 36 | 7 | 7 | 7 | — ⅛ |
| 23⅞ | 17⅞ | Albertsn | .72 | 9 | 46 | 20½ | 20¼ | 20⅜ | + ⅛ |
| 30⅝ | 18⅝ | AlcanAlu | [illegible] | 52 | 420 | 23½ | 23⅛ | 23¼ | — ⅛ |
| 18½ | 14½ | AlcoStd | .83a | 6 | 10 | 17¼ | 17¼ | 17¼ | |
| 28 | 18¾ | AlconLb | .22 | 16 | 18 | 20¼ | 19⅞ | 20⅛ | + ⅜ |
| [illegible] | | | | | | | | | |

(Continued on next page.)

# NYSE Nationwide Trading (3 O'clock) Dec. 8

(Continued from preceding page.)

(Continued on next page.)

## U.S. Commodity Prices

NEW YORK FUTURES

CHICAGO FUTURES

## London Commodities

## London Metals Market

## Paris Commodities

## Wednesday's New Highs and Lows

NEW HIGHS— 127

NEW LOWS— 11

| | | |
|---|---|---|
| Pd | Johnsn John | Rohm Haas |
| wi | Miles Lab | Sears Roeb |
| Dick | Phelps Dod | TexEastn |
| AS | Phelps Dod | |

## International Bonds Traded in Europe

Midday Indicated Prices

Dollar Bonds

Convertible Bonds

Bondtrade—Index

## gium Cuts Rate

RUSSELS, Dec. 8 (AP).—The ian central bank reduced ombard rate by one point to er cent, the bank said, to- The discount rate remained nanged at 9 per cent. The bard rate is against Trea- certificates.

## ndix Ends Merger

OUTHFIELD, Mich., Dec. 8 uters). — Bendix Corp. and Cell-O Corp., said today they e terminated the proposed -million merger of Ex-Cell-O Bendix. They said they could reach mutually acceptable ns.

# NYSE Nationwide Trading (3 O'clock) Dec. 8

(Continued from preceding page.)

[illegible]

M

[illegible]

N

[illegible]

O

[illegible]

P - Q

[illegible]

R

[illegible]

S

[illegible]

(Continued on next page.)



## Selected Over-the-Counter Stocks

Closing Prices Dec. 8, 1976

NEW YORK (AP) — The following list is a selected National Securities Dealers Association over the counter Bank, insurance & industrial stocks.

[illegible]



## Tokyo Exchan[ge]

[illegible]

## Market Summ[ary]

*NYSE Most Acti[ve]*

[illegible]

*Dow Jones Averag[es]*

[illegible]

*Standard & Poor['s]*

[illegible]

*NYSE Index*

[illegible]

*Odd-Lot Trading in ...*

[illegible]

*American Most Acti[ve]*

[illegible]

## NYSE Nationwide Trading (3 O'clock) Dec. 8

| 1976 — Low | Stocks and Div in $ | P/E | Sls. 100s. | High | Low | 3 p.m. Quot. | Ch'ge prev Close |
|---|---|---|---|---|---|---|---|
| (Continued from preceding page.) | | | | | | | |
| 18¼ | ShlGl pf1.35 | | 11 | 19½ | 19½ | 19½ | |
| 33¼ | SherwW 2.20 | 12 | 28 | 49 | 39⅝ | 39⅝— | [illegible] |
| 58½ | ShrW pf 4.40 | | z280 | 69 | 69 | 69 — | |
| 9⅝ | SierrPac | 1 | 8 | 120 | 13¼ | 13 | 13⅛— [illegible] |
| 15⅝ | Signal 1.10 | 11 | 33 | 22½ | 22¼ | 22¼— | ⅛ |
| 32 | Signode 1.20 | 13 | 19 | 40½ | 40½ | 40½+ | ⅜ |
| 5 | SimPrec .16 | 7 | 36 | 5⅞ | 5⅝ | 5⅝— | ⅛ |
| 17⅛ | Simm .88a | 10 | 13 | 18 | 17⅞ | 17⅞— | ⅛ |
| 11⅝ | SimpPat .58 | 15 | 237 | 15⅝ | 15½ | 15⅝+ | [illegible] |
| 8⅝ | Singer Co.10e | | 122 | 17¼ | 16⅞ | 17¼+ | ¼ |
| 34½ | Singr pf 3.50 | | 7 | 41¼ | 41 | 41¼+ | ¼ |
| 19⅝ | Skaggs .50 | 11 | 24 | 22⅝ | 22⅜ | 22⅜ | |
| 66 | Skelly 1.60a | 11 | 7 | 110½ | 107⅝ | 109⅝— | |
| 7⅛ | Skil Corp | 8 | 6 | 10 | 9⅞ | 9⅞— | ⅛ |
| 15⅝ | Skyline .32 | 24 | 135 | 19⅜ | 18⅞ | 18⅞— | ⅛ |
| 8⅝ | SmithAO .80 | 22 | 58 | 14⅝ | 14¼ | 14⅝ | |
| 28⅜ | SmithInt .52 | 9 | 32 | 39 | 38⅝ | 39⅝ | |
| 58½ | SmithKline 2 | 16 | 340 | 77⅝ | 75⅝ | 77⅝+ | 1⅞ |
| 13 | SmithTr .40 | 6 | 11 | 17¼ | 17 | 17 — | ⅛ |
| 15⅛ | Smucker .95 | 6 | 6 | 17⅝ | 17⅛ | 17⅝+ | ⅛ |
| 10⅝ | SolaBas .40 | 7 | 104 | 11⅛ | 11 | 11⅛ | |
| 2⅝ | Sonesta unl | 27 | 30 | 3½ | 3⅜ | 3½+ | ⅛ |
| 7⅜ | SonyCp .02e | 22 | 1272 | 9¼ | 9 | 9¼+ | ¼ |
| 37⅝ | SooLin 2.45e | 6 | 18 | 40 | 39¼ | 39¼— | ⅜ |
| 15⅝ | SCarEG 1.52 | 9 | 168 | 18¼ | 18 | 18⅛— | ⅛ |
| 14⅝ | SoJerIn 1.56 | 8 | 3 | 18¼ | 18⅛ | 18¼ | |
| 9⅞ | Soutdwn .60 | 5 | 5 | 14 | 13⅞ | 14 | |
| 21⅜ | Sdwn pf 1.80 | | 2 | 25¾ | 25¾ | 25¾+ | ⅜ |
| 9¼ | SoestBk .40b | 10 | 137 | 10 | 9⅞ | 10 + | ⅛ |
| [illegible] | | | | | | | |

| 1976 — High | Low | Stocks and Div in $ | P/E | Sls. 100s. | High | Low | 3 p.m. Quot. | Ch'ge prev. Close |
|---|---|---|---|---|---|---|---|---|
| [illegible] | | | | | | | | |
| **X** | | | | | | | | |
| 68⅝ | 48¾ | XeroxCp 1.20 | 13 | 1380 | 57 | 55⅝ | 56½— | 1¼ |
| 14½ | 7½ | Xtra Inc | 21 | 75 | 13⅝ | 13¼ | 13½+ | ⅛ |
| **Y** | | | | | | | | |
| 12⅝ | 6¼ | Yates Ind | 9 | 12 | 10⅝ | 10⅜ | 10⅝— | ⅛ |
| **Z** | | | | | | | | |
| 25⅛ | 11¼ | ZaleCorp .88 | 6 | 96 | 14⅝ | 14⅛ | 14⅝+ | ¼ |
| 20¼ | 11 | ZalepfA .80 | | 12 | 13½ | 13 | 13½+ | ⅝ |
| 16 | 10¼ | Zapata .30b | 3 | 63 | 12⅝ | 12⅛ | 12⅛— | ⅛ |
| 9½ | 5¼ | Zayre Corp | 6 | 83 | 7⅞ | 7¾ | 7¾— | ⅛ |
| 40⅝ | 23⅝ | ZenithRad 1 | 13 | 263 | 26⅝ | 26⅛ | 26¼+ | ¼ |
| 14¼ | 9⅝ | ZurnInd .48 | 10 | 98 | 14 | 13½ | 14 + | ⅝ |

Sales figures are unofficial.

Unless otherwise noted, rates of dividends in the foregoing table are annual disbursements based on the last quarterly or semi-annual declaration. Special or extra dividends or payments not designated as regular are identified in the following footnotes.

a—Also extra or extras. b—Annual rate plus stock dividend. c—Liquidating dividend. e—Declared or paid in preceding 12 months. i—Declared or pid after stock dividend or split up. j—Paid this year, dividend omitted, deferred or no action taken at last dividend meeting. k—Declared or paid this year, an accumulative issue with dividends in arrears. n—New issue. r—Declared or paid in preceding 12 months plus stock dividend. t—Paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date.

x—Ex-dividend or ex-rights. y—Ex-dividend and sales in full. z—Sales in full.

cld—Called. wd—When distributed. wi—When issued. ww—With warrants. xw—Without warrants. xdis—Ex-distribution.

vi—In bankruptcy or receivership or being reorganized under the Bankruptcy Act, or securities assumed by such companies.

Year's high and low range does not include changes in latest day's trading.

Where a split or stock dividend amounting to 25 per cent or more has been paid the year's high-low range and dividend are shown for the new stock only.

## Toronto Stocks

Closing Prices Dec. 7, 1976

Quotations in Canadian funds. Quotations in cents unless marked $.

| Sales | Stock | High | Low | Last | Ch'ge |
|---|---|---|---|---|---|
| [illegible] | | | | | |
| 5687 | UGas A | $8⅝ | 8⅛ | 8¼+ | ⅛ |
| 700 | Union Oil | $8⅝ | 8½ | 8⅝ | |
| 4200 | U Siscoe | $5½ | 5⅜ | 5½ | |
| 1200 | Upp Can | 101 | 101 | 101 | |
| 1600 | Van Der | 220 | 216 | 220 + | 4 |
| 600 | Voyager P | $15 | 14⅝ | 15 + | ⅛ |
| 650 | Weldwod | $12¼ | 12¼ | 12¼+ | ¼ |
| 1890 | Wstburne | $9⅛ | 8⅞ | 9⅛+ | ½ |
| 210 | West Mine | 460 | 60 | 460 + | 5 |
| 3700 | Weston | $10¾ | 10⅝ | 10⅝ | |
| 995 | Woodwd A | $16 | 15½ | 15⅝— | ⅜ |
| 380 | YK Bear | 278 | 275 | 275 — | 5 |
| 3300 | Yukon C | 160 | 155 | 155 + | 5 |

Total sales 2,703,461 shares

## Montreal Stocks

Quotations in Canadian Funds. Quotationsin cents unless marked $.

| Sales | Stock | High | Low | Last | Ch'ge |
|---|---|---|---|---|---|
| 3600 | Asbestos | $ 24 | 24 | 24 | +1¼ |
| 2516 | Bank Mont | $ 14¼ | 14 | 14 — | ⅛ |
| 2450 | Basic Res | $ 8⅛ | 7⅞ | 8⅛+ | ⅛ |
| 1304 | Can Cement | $ 8¼ | 7⅞ | 8 — | ¼ |
| 2108 | Con Bath | $ 27 | 26⅞ | 27 + | ⅛ |
| 2550 | Dom Text | $ 7⅞ | 7⅞ | 7⅞ | |
| 400 | Fncl Col | 145 | 145 | 145 | |
| 2500 | Gaz Metro | $ 6⅛ | 6⅛ | 6⅛+ | ⅛ |
| 1250 | Molson A | $15⅝ | 15⅛ | 15¼+ | ⅛ |
| 685 | Price Co. | $ 10⅝ | 10 | 10 — | ½ |
| 2202 | Royal Bank | $ 24⅝ | 24½ | 24⅝ | |
| 2800 | Roy Trust A | $ 16⅝ | 16⅛ | 16¼— | ½ |
| 100 | Steinberg A | $ 13 | 13 | 13 | |
| 100 | Trizec | $ 10 | 10 | 10 — | ¼ |
| 400 | Zellers | 275 | 275 | 275 | |

Total sales 296,686 shares.

## European Gold Markets

Dec. 8, 1976

| | Open | Close | N.C. |
|---|---|---|---|
| London | 134.65 | 135.65 | +4.60 |
| Zurich | 134.125 | 135.75 | +4.875 |
| Paris (12.5 kilo) | 134.21 | 134.72 | +2.77 |

U.S. dollars per ounce.

# Amex Nationwide Trading (3 O'clock) Dec. 8

(Continued on next page)



# Currency Rates

December 8, 1976

By reading across this table of yesterday's closing inter-bank foreign exchange rates, one can find the value of the major currencies in the national currencies of each of the following financial centers. These rates do not take into account bank service charges.

| | $ | £ | DM | FF | L. It. | Gldr. | BF com. | SwissF. | Dan.Kr |
|---|---|---|---|---|---|---|---|---|---|
| Amsterdam | 2.4570 | 4.1740 | 104.16* | 50.01* | 28.045 | — | 6.8290* | 101.87* | 42.83* |
| Brussels (c) | 36.61 | 61.14 | 15.2050 | 7.3250 | 4.2450* | 14.6540* | — | 14.9240 | 6.2255 |
| Frankfurt | 2.4010 | 4.0157 | — | 48.04* | 2.779x | 96.08 | 6.550* | 97.02* | 40.85* |
| London (a) | 1.6711 | — | 4.0115 | 8.3510 | 1,443 | 4.17875 | 61.10 | 4.03975 | 9.8175 |
| Milan | | | | | Closed — | | | | |
| Paris | 4.9360 | 8.35125 | 208.325* | — | 5.7965x | 200.100* | 13.6585* | 203.780* | 85.250* |
| Zurich | 2.4344 | 4.1032 | 102.21* | 49.12* | 0.2842* | 98.21* | 6.67* | — | 41.60* |

The following are dollar values only: Danish krone: 0.6755; Escudo: 21.525; Israeli £: 8.7065; Peseta: 68.325; Schilling: 17.02; Sw. krona: 4.1790; Yen: 296.225; Belgian financial franc: 36.58; Hong Kong $: 4.7615; Singapore $: 2.45475.

The Canadian dollar is worth U.S. $0.97825.

(c) Commercial franc. (*) Units of 100 (x) Units of 1,000 (y) Units of 10,000 (a) Amounts needed to buy one pound

## Eurocurrency Interest Rates

## International Stock Indexes

## European Markets

(Yesterday's closing prices in local currencies)

Amsterdam

Brussels

Frankfurt

London

Paris

Zurich







## Italian Markets Shut

All banks and stock exchanges in Italy were closed, Wednesday, for a religious and civil holiday.

# Amex Nationwide Trading (3 O'clock) Dec. 8

Continued from preceding page.

| 1976 High | Low | Stocks and Div in $ | P/E | Sls. 100s. | High | Low | 3 p.m. Quot. | Ch'ge prev. Close |
|---|---|---|---|---|---|---|---|---|
| [illegible] | | | | | | | | |
| 31 | | HudBO | 1.40 9 | 7 | 33¼ | 33¼ | 33¼+ | ¼ |
| 6 | | Huffman | .40a 4 | 13 | 11⅛ | 11 | 11 + | ⅛ |
| 2 | | HuntHlt | .05r 4 | 8 | 2⅞ | 2⅞ | 2⅞ | |
| 16½ | | HuskyO | .80 5 | 84 | 18½ | 17¾ | 18¼+ | 1 |
| 3 | | Hycel Inc | 17 | 15 | 3⅝ | 3¼ | 3⅝+ | ⅛ |
| 3⅜ | | ICMR | .50j | 4 | 5⅝ | 5¼ | 5⅝ | |
| 5 | | IMCMg | .20 6 | 2 | 5⅝ | 5⅝ | 5⅝ | |
| 2½ | | ISCFinl | .30 12 | 7 | 2¾ | 2⅝ | 2¾+ | ⅛ |
| 3-16 | | ImpCh | .30e 5 | 1 | 5⅛ | 5⅛ | 5⅛+ | ⅛ |
| 5¼ | 2⅞ | Mamm Mrt | 11 | 161 | 4⅞ | 4⅝ | 4⅝— | ¼ |
| 15¼ | 13 | PGpfA | 1.25 | 5 | 14⅝ | 14 | 14⅝+ | |
| 5 | 3 | Ruddick Cp.12e | 4 | 2 | 4⅝ | 4⅝ | 4⅝+ | ⅛ |
| 2½ | 1 | Rusco Ind | | 30 | 1½ | 1½ | 1½ | |

# CLASSIFIED ADVERTISEMENTS

(Continued from Back Page)

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## REAL ESTATE FOR SALE

PARIS AND SUBURBS

ESPLANADE DES INVALIDES

High class building, elegant apartment, salon, dining-room, 3 bedrooms, exceptional location. EUROPA 705.24.18.

8th, AVE. MONTAIGNE:

Very high class, 88 sq.m. beautiful 2 rooms, kitchen, bath, dressing-room.

65 sq.m., big living + alcove. High price. 775.01.77-775.16.49.

MONTMARTRE, FACING SACRE-COEUR, owner sells 2/3 rooms, 55 sq.m. All comforts, central heating, bathrooms, fireplace, phone, cellar: 350,000 F. Tel.: 387.18.20 office hours.

SELL DUPLEX: Artist's atelier 175 sq.m. in high class renovated private mansion. Pereire-Monceau area. Call morning 380.22.81 or afternoon 208.36.67.

MADELEINE: 750,000 F., 4 rooms, kitchen, bath, maid's room, 100 sq.m., private and commercial lease, owner, 633.11.33 morning.

AVE. FOCH: Class building, 6th floor, terrace, parking, phone, 2 rooms. 67 sq.m. 820,000 F. 329.62.14.

ROCHEFORT EN YVELINES: 35 kms. Paris highway, Louis XIII château with park, on edge of golf, Domainial forest. Owner: Company, 858-03-86 or Telex: 60531 F.

TROCADERO: 408-sq.m. flat, 10 rooms + 4 maid's rooms, 2 cellars, garage. F 2,350,000. Tel.: 770-51-39.

EXCEPTIONAL ST. GERMAN EN LAYE: 4/5 rooms, 100 sq.m. + loggia, 5 mins. RER. F 300,000. 973-32-68 or evening, 963-46-19.

ST-GERMAIN-DES-PRES: charm of the past, elegant 3 rooms, chimney. 960.06.02.

15th PRIVATE MANSION. Well situated. Tel.: 828-25-69, between 9 to 12 a.m.

15th RESIDENTIAL. STANDING 5 rooms, high story, balcony, sunny, parking. Tel.: 828.45.82.

15th: EXTRAORDINARY VIEW on all of Paris. 4 rooms, 90 sq.m. Swimming pool and solarium. 326-31-09.

RUE DE SEINE: large studio character, calm, equipped kitchen, shower. Tel.: 603.69.27.

METRO ODEON: Fr. 240,000. Equipped studio. 23 sq.m. Balcony. Tel.: 633-11-33, morning.

FRENCH PROVINCES

NORMANDY

Marvellous 17th-century manor near HONFLEUR, 25 km. from DEAUVILLE.
English style, exceptional charm and character, 2 large livings, dining room, winter garden, 5 bedrooms, 2 baths, 3 half baths, modern kitchen entirely equipped, central heating. Everything is perfectly restored and decorated. Oak wood panels, Versailles flooring, old-style fireplaces. 17,000 m. park all enclosed, garages—outbuildings.
INTERESTING PRICE
Phone or write: The Count of Montalou, 8 Chemin des Fonceaux, BURES, 78130 ORGEVAL. Tel.: 975.88.72.

OUTSTANDING OPPORTUNITY: 2 hrs. from Paris, near Loire, 8 kms from Gien. Unique location, fishing, hunting, vineyards, calm and secluded. Owner sells 67 acres of land, wood and fields: 3 18th Century period stone buildings, water mill on trout river + guest-house + stone barn, caretaker's house, garage, gardens, 7 bedrooms, 2 baths, 2 showers, living room, dining room, office, dependencies, modern comforts, completely renovated. FF 1,600,000. Call morning & evening: (1) 227-47-32, office hours (1) 727-04-53

COTE D'AZUR: Magnificent large villa, panoramic sea view: direct from owner, must sell. F 2,500,000. Box 97.326, Herald Tribune, Paris.

4 KMS FROM AIX-EN-PROVENCE. Private sells old typical Provencal farmhouse to restore. 2 stories. 100 sq.m. + 3,000 sq.m. land. Box 97,332, Herald, Paris.

CANNES. 50 new buildings, builders price, F 5,000-15,000/sq.m. Documentation & visit: Agence MARCLE. (93) 39.00.64.

SUPER CANNES, pretty new villa. 4 bedrooms, 4 baths, living 100 sq.m., pool, panoramic sea view. Tel.: Marcié (93) 39.00.64.

## REAL ESTATE FOR SALE

FRENCH PROVINCES

FRENCH RIVIERA. Le Parc Ste.-Maxime, 1,800 meters from sea, facing South, view on Golfe de ST.-TROPEZ. 64-villa complex, built in 46,000 sq.m. pine forest. Fine traditional construction, double walls, electrical heat throughout. Villas 3, 4, 5 rooms with 500 sq.m. garden. Ready fall 1977. Credit possible. Model villa on the spot, Route du Muy, 83120 Sainte-Maxime, or Sifim, 15 Rue Dante, (93) 88.80.80 Nice.

DEAUVILLE près du golf, magnifique duplex 50 m2, prix exceptionnel, vue panoramique. Tel.: 256-33-00 heures bureau.

BEAUTIFUL VILLA: large living, 7 bedrooms, 5 baths, pool. 12,000 sq.m. land. Sole agent: Marcié, Cannes, (93) 39.00.64.

DEAUVILLE près golf. Villa normande, grand standing. Tel.: 56-33-00, heures bureau.

GREAT BRITAIN

LONDON. BILTON TOWERS, MARBLE ARCH. Luxury 2 bedroom apartment with lifts, porterage, etc. 72 years unexpired lease, subject to life tenancy of elderly lady, reduced price accordingly of £35,000 or near offers. Contact: Harding-Marsh, 133 Hammersmith Road, London, W. 14 Tel.: London 603 7495.

ASCOT PROPERTIES offer a selection of luxury apartments and houses for sale & rent. No commission charged. 01-4861161.

ITALY

Ancient farms, old estates, abandoned chapels, venerable parks, age-old gardens, ancestral palaces and manors in TUSCANY, ITALY, South France, available for purchase. Information from: Aebersold & Digenti, Walchestrasse 17, 8006 Zurich, Switzerland. Telephone: (01) 28.95.05.

CASTROCARO EMILIA: large 18th century watermill for conversion 28 km. Adriatic coast. $35,000 Write: Anichini, Via Mantellate 9 Florence.

SARDINIA—Portobello di Gallura—Ground for sale 5,600 sq.m. access to sea, approval to build small villa, project already made: for information please contact: Box 537, Herald Tribune, Via della Mercede 55, 00187 Rome.

PORTUGAL

LISBON: Beautiful house to be sold, built 1755 with large garden, between airport and town centre. Rebuilt 1957 all service parts very modern, 32 rooms with 6 bathrooms. XVIIIth-century tiles in many corridors and drawing rooms. Internal telephone system and central heating. Call: Mrs. Figueiredo, Lisbon, 790252 or 793386.

CASCAIS: Waterfront-deluxe villa 2 floors, with superb view over the bay (near Hotel Albatroz), 2 receptions, 4 bedrooms, 2 bathrooms, 2 superb terraces. Call business hours: Miss McCready London, 2487421.

SPAIN

7-ACRE ESTATE on 800 m. beachfront between Marbella and Soto Grande. 5 bedrooms + 4 baths, main house, pool, servants' house. Possible site for hotel or other commercial development. $450,000. Tel.: Paris: 704-80-42 or Marbella: 827-534.

BUSINESS OPPORTUNITY. Magnificent, completely developed 6,000 sq.m. of land for sale situated in very exclusive and wooded area, with sea view, close to beach. Running water, electricity, telephone. Price: 2,800 Ptas. the sq.m. Write: P.O. Box 176, San Antonio Abad, Ibiza (Balearics), SPAIN.

EXCLUSIVE, 18th century Andalusian home, 7 rooms, all modern equipment, guest house, separate garage, etc., in beautiful large walled-in garden and patio. Swimming pool. Sea and mountain view. Near Marbella. Contact: Apt. 108, Fuengirola/Malaga.

DUPLEX PENTHOUSE, 430 sq.m. Castellana area (Madrid). 2 terraces, sauna, air-conditioned, payment facilities. U.S. $225,000 Tel.: Madrid, 222-48-95

U.S.A.

VERMONT LAND — 97 ACRES. $65,000. Champlain Valley. Meandering river. Income hay crop. Views. Owner, B.R. Wakefield, Box 686, Middlebury, Vermont 05753, U.S.A., 802/388-7322.

## REAL ESTATE FOR SALE

U.S.A.

1,100-ACRE FLORIDA RANCH. 150 acres premium citrus. Joins I-95 town. Excellent for development, profitable for remote owner. $2,500/acre. Box 42, Roanoke, Va. 24002. Tel.: 703-342-2216.

CENTRAL FLORIDA—400 ACRES, Lake Oriole, luxury ranch. Price: $1,200,000. Free brochure. Joe Smith Realty, Broker, P.O. Box 331, Brooksville, Florida 33512.

SWITZERLAND

SAINT-MORITZ

Splendid 2-bedroom, 2-bath condominium in small, exclusive house. Luxurious. Spectacular 180-degree view of all St.-Moritz from elevated location on restricted traffic road. Short walk to cable railway. Write: Paul Ammann, Chesa Sul Crap, 7500 Saint-Moritz.

## REAL ESTATE WANTED AND EXCHANGE

AMERICAN EXECUTIVE seeks apartment in Paris or Neuilly. Double reception, 2 bedrooms. Furnished or unfurnished. Call: 359-04-68.

CHRISTMAS 2 TO 3 WEEKS. Family seeks 4-roomed flat. Fully equipped. Central Paris. Tel.: 256-13-78.

SEEKING IN PARIS fully furnished flat, 1 bedroom. Left bank or near Seine. Jan.-June. Reasonable rent. Leave message Room 1544, Paris Sheraton: 260-35-11.

SEEKS ROOM SMALL FLAT from 1st Jan. 77 Paris. 17th or 18th. Call: 531-43-37 p.m.

CHARMING 2 BEDROOM Apartment Paris 14th, all comfort, 90 sq.m. on quiet street offered for something similar quality in Washington beginning Jan. Reply: Box 97.314, Herald, Paris.

## PERSONNEL WANTED

FOR MORE EXECUTIVE POSITIONS, LOOK UNDER "INTERNATIONAL EXECUTIVE OPPORTUNITIES": PAGE 8.

Plastics Industry in Bahrain

requires the services of a
PRODUCTION MANAGER
and a
MAINTENANCE ENGINEER.
Experience with PVC/PE extrusion and injection, moulding of fittings indispensable.
Please apply to: Mrs. H. Seray, P.O. Box 11, CH-1213 Onex, Geneva.

BILINGUAL SECRETARY

Need for challenging position in Merchant Bank in PARIS where drive, initiative and responsibility are essential. ENGLISH mother-tongue preferable. Fluent FRENCH and able to handle matters in both languages. Indicate salary required. Send C.V. + picture to Box 97,353, Herald Tribune, Paris.

SOCIETE
INTERIM
recherche
SECRETAIRES
Bilingues Français/Anglais.
Travail assuré en permanence.
Possibilité de promotion.
Ecrire avec C.V. et réf.:
INTERIM EXTRA
Covétoile
3 Rue Saint-Michel
94700 MAISONS-ALFORT.

MINERVE SEEKS for AMERICAN FIRMS in PARIS. English, Belgian, Dutch or German secretaries, knowledge FRENCH required, English shorthand. Bilingual telexists. Write or phone: 138 Avenue Victor-Hugo, 75116 Paris. France. Tel.: 727.61.69

AMERICAN CONSULTING FIRM Seeks perfectly bilingual French-English shorthand typist. Send C.V. to Spencer Stuart & Associates, 39 Ave. Franklin Roosevelt, Paris 8th.

FRENCH COMPANY seeks full time dictaphone typist. Experience of technical publications desirable. Paris: 657-12-71.

## PERSONNEL WANTED

BIS
Temporary Jobs
RECRUITS
BILINGUAL
SECRETARIES
BILINGUAL
TYPISTS
BILINGUAL
STENOS
BILINGUAL
TELEXISTS
BILINGUAL
CHAUFFEURS
BILINGUAL
FINANCIAL-
ANALYSTS
BILINGUAL
ACCOUNTANTS
For interview:
BOURG-LA-REINE
141, Ave. Général-Leclerc.
Tel.: 660-01-97.

EXPORT MANAGER

For United States Housewares Manufacturer, to be situated in Europe. Must be fluent in Euro-languages. Opportunity. Box 12,014. Herald Tribune, Paris.

TRILINGUAL SECRETARY: Paris office (located near Place Vendôme) of an important U.S. company is looking for a trilingual secretary/assistant to the European manager. Fluent in English, French, German. Shorthand is not mandatory. Experience in routine administration. Valid work papers. This is a unique opportunity for somebody looking for an independent job within a small and young team. Send C.V. to Crompton S.A., 14 Rue Castiglione, Paris 1er. Attn: Mr Joser.

TRANSLATOR. Immediate opening exists in Germany for a translator, totally fluent in German capable of accurate German/English translation. Additional response includes general office duties and typing ability. Candidates must be U.S. citizens. For immediate consideration, call our office in Germany at (06121) 843686 from 8 a.m. to 5 p.m. weekdays. Send resumé with salary requirement to: Box 12,008. Herald Tribune, Paris.

INFANTRY, ARMOR SPECIALIST COMBAT ENGINEER, FIELD ARTILLERYMAN, MECHANIC No experience necessary. We train. Good starting salary. Educational opportunities, many benefits. Must be U.S. CITIZEN, young man, 18 or over, high school grad preferred. Call: Army Opportunities: Heidelberg, Germany 06221-13188.

WANTED, lady, U.S. citizen or having lived several years in U.S.A. Fluent American language experience secretary, shorthand French and English. Living close to Vincennes or Eastern R.E.R station for part or full-time employment. Write with C.V. to: Béatrice, FOODS CO., B.P. 82. 94300 Vincennes Principal.

AAFES FURNITURE Concessionaire urgently needs qualified furniture sales personnel/store managers for choice locations on a commission plus expenses basis. Job is most interesting and steady income is assured. Applications with full C.V. and photograph to: Box 859, I.H.T., Gr. Eschenheimer Str. 43, Frankfurt, Germany.

EXPERIENCED American or English representative wanted to sell investment to qualified leads Europe-wide. Good earnings for hard worker. Second language an advantage. This is not land or stocks. Box 854, I.H.T., Gr. Eschenheimer Str. 43, Frankfurt/Germany.

WANTED FOR FULL TIME post: teacher with TEFL experience in English and German. audio-visual experience, work permit and good French necessary. Send C.V. and photo to: PROM Export France, 18 Quai de la Rapée, 75012 Paris.

## PERSONNEL WANTED

INTELLIGENT Young Male/Female required for small French shipping company. Good English essential and working knowledge of French preferred. Any EEC nationality acceptable. Must be able to work with figures and on own initiative. Phone: 265-81-20. Paris.

LANGUAGE SCHOOL SEEKS English mother-tongue teachers full-time and part-time for Paris and Provinces. EEC or valid work papers. Tel.: 525-03-40.

EXPERIENCED TEFL teacher Paris immediately. Peace corps especially appreciated. Write with C.V. and photo to Box 97.333. Herald Tribune, Paris.

INTERNATIONAL ORGANIZATION seeks experienced typist. English mother-tongue. Work papers not necessary. Write: BIE, 56 Avenue Victor-Hugo, Paris 16e.

ENTREPRENEUR DE SPECTACLES recherche jeune femme pour réception & phone. Bilingue anglais/français. Libre de suite. 503-01-50 entre 10 & 18 h.

EXECUTIVE SECRETARY (English-French) for managing director international chemical company, 30 mins. Montparnasse Call: 055-80-45, Service du Personnel, Penwalt, France.

OILFIELD DIVERS, saturation experience essential. Send full resumé in strict confidence: Box 2,036, I.H.T., 28 Great Queen St. London, WC2.

HAPPINESS is a job offer in France, the U.S. or U.K. Write to: SUPER SEARCH, Dept. BB B.P. 169-07, 75326 Paris Cedex 07

TEACHER OF ENGLISH required immediately. Phone: 362-11-11. Mr. Wilson.

## SITUATIONS WANTED

IRANIAN ECONOMIST, 40, 2 degrees; excellent knowledge of and several years experience in developing country, versatile. English, French, Russian, Persian; seeks responsible position in international company. Send offers to: No. E18-115488, Publicitas CH-1211 Geneva 3.

ASSISTANT TO MANAGER, Cosmopolitan gentleman, multilingual (English - French - Spanish - Portuguese, some Italian). Sales-Public Relations. Negotiations on international scale, etc., willing travel extensively assisting busy Executive/Entrepreneur anywhere. knowledge Latin America-underdeveloped countries, keen judgment of people, resourcefulness, adaptability. Very reasonable remuneration. Consider even short assignments anywhere. Write: B Constantopoulos, P.O. Box 1,393 Omonia, Athens, Greece.

SPANISH, 26 years old, licensed in law (Barcelona University) now about to finish "Master International management" in USA intends contact international company for possible job marketing area after May 1977. I shall be in Europe from 22-12-76 to 24-1-77, prepared for travel at my expense. Why not an appointment? Please write (English French, Spanish) to: R. M. Puig Box 960, American Graduate School International Management Glendale AZ, 85306, U.S.A.

ECONOMIST, 32 years old, wide experience industry/marketing/planning Europe and developing countries (North Africa), perfectly bilingual English-French, seeks responsible position. Swiss residence permit. Available for discussions Geneva-Paris-London end December / beginning January. Free as of Spring 1977. Reply under cipher B 18-115506, Publicitas, 9 Rue du Prince, CH-1211 Geneva 3.

YOUNG IRANIAN ARCHITECT, English trained with planning and development experience offers assistance to international professional organizations or development companies in Iran & Mid East. Write: Box 2,049, I.H.T., 28 Gt. Queen St., London, WC2.

YOUNG LADY, 30, excellent appearance, speaks English and Spanish, secretarial knowledge and artistic taste, seeks exciting situation, flexible hours, even travel. Leave message: 727-67-16 (Paris) or write: No 39.023 P.A., SVP, 37 R. Gén.-Foy, 75008 Paris

YOUNG ENGLISHMAN requires an appointment as a chauffeur in California. Sound experience and recent Rolls Royce training undertaken. Box 2,039, I.H.T., 28 Gt. Queen St., London WC2.

MISS H., English, 27, French-speaking NANNY, fully expert, drives, good reference, seeks nice job France. Call: London 730 6185, Search Agency, 25 Kings Rd SW3. Cable Searchagy.

FRENCHMAN, 40, with U.S. alien card, educated, SEEKS someone needing complete care of home driving, secretary-interpreter, tutoring children, etc. Write: Bertil c/o Sodelor, 60 Rue des Lombards, 75001 Paris. Telephone: 261-46-60.

## SITUATIONS WANTED

YOUNG WOMAN, 25, excellent appearance, bilingual French-English, some German, Spanish, seeks post receptionist & hostess board in Frankfurt, Germany. Will consider all offers. Free 1 Feb. Box 97.325, Herald, Paris.

FRENCH WOMAN, 42, divorced, 10-year-old child. Good appearance well educated, seeks post abroad Executive secretary, shorthand typing, knowledge English excellent references... Or governess to manage house or take care of child. Only serious and stable posts considered. Reply 97.332, Herald Tribune, Paris.

YOUNG GERMAN LADY, 24 years seeks interesting job with contacts. Fluent English French, actually in Paris but willing to travel or live abroad preferably in U.S.A. Free from Jan. 1. Please contact: Suzanne SIEBERT, 1 R. des Bauches, Paris 16.

NORDIC LADY, VERY GOOD looking, multilingual, till now in fashion business, seeks well paid job as personal executive, hostess or travelling companion. Reply: Box 2,473, Herald, Paris.

IRISH GIRL (24) SEEKS POST Paris. Reception, Secretarial, Switchboard, dictaphone, fluent French, good German. Box 2,46.., Herald, Paris. Start immediately.

AMERICAN BUSINESSMAN, 43 degrees, living West Germany experienced international sales marketing/trading/licensing. 3 languages. All fields considered. Box 861, I.H.T., Gr. Eschenheimer Str. 43, Frankfurt Germany.

WIDE MIDDLE EAST experience. Spoken Arabic, excellent contacts Arab countries. Senior post with Middle East travel sought based Europe or U.K. Part time representative considered. Box 2,050, I.H.T., 28 Gt. Queen St., London WC2.

EXPERIENCED TRILINGUAL secretary, fluent English, French, good Spanish, shorthand French-English, seeks responsive job with, if possible, travelling opportunities. Free January. Write, Boite postale 451 03, 75366 Paris Cedex 08 or telephone 2 to 3 p.m.: 579.83.68.

AMERICAN, 50, resident France. Overseas representative of American shipping company for 30 years. Travelled five continents as Tour Director. Fluent French, Spanish, knowledge German. Seeks interesting work. Write: Box 97,268, Herald, Paris.

GENTLEMAN fluent English Spanish, French and Portuguese administrative and secretarial experience, seeks suitable position, write: J. Medin, E. Dato 5-3o Madrid or Tel.: 4497971 nights

M.A. English, taught 5 years, Vassar Quaker woman, 27, career-st fluent French, German, Fulbright till Dec. 22, Schmidt, Wasserweg 4, 3000 Hannover 73, 0511-527-034

YOUNG MAN, 29, requires interesting work. International driving licence, no ties, anything legal considered. Box 2,074, I.H.T., 28 Gt Queen St., London, WC2.

U.S. BUSINESSMAN, 30 years experience Greece, seeks commercial connection Athens. Herald Pindarou 25, Ext. J., Athens

BILINGUAL TELEX OPERATOR, over 12 years experience. English mother tongue. Write, Alnnou 22 R. des Poissonniers, 75012 Paris.

FRENCH GIRL, 25, bilingual English. Teaching and commercial background, seeks translator, teaching or secretarial job. Box 97.330, Herald, Paris.

EXCELLENT BILINGUAL TYPIST I work at home from manuscripts in English, French. Very fast delivery. Call: 250-13-40. Paris.

JAPANESE with English, French knowledge, typing ability seeks job. Box 97,774, Herald, Paris.

FULLY TRAINED English nurse seeks situation as companion in Cannes. Tel.: 38 74 96.

GERMAN, 36, Dynamic sales manager available. University degree, French, English, Spanish. Write: Box 2,457, Herald, Paris.

EXECUTIVE SECRETARY fully bilingual seeks job 20-30 hours weekly. Box 2,455, Herald, Paris.

GRADUATE FRENCH TEACHER available to teach. Paris. 924.87.04

PRIVATE COURIER. Worldwide assignments. Resourceful, intelligent, reliable. Also negotiations. Box 2,051, I.H.T., 28 Gr. Queen St., London WC2.

## DOMESTIC SITUATIONS

SITUATIONS WANTED

ENGLISH MUM'S HELPS, NANNIES, FREE NOW. NASH PERSONNEL, 27 GRAND PARADE BRIGHTON, U.K. TEL.: 64507

AMERICAN BABYSITTER available. Tel.: Paris, 754-35-70.

HELP WANTED

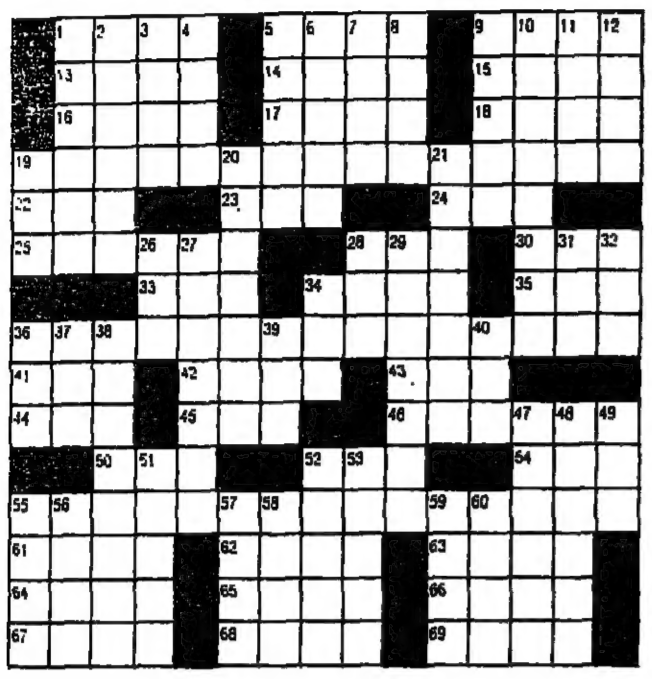
YOUNG ENGLISH SPEAKING girl 6 hours per week to take care of 16-month-old child & shopping. Tel.: 267-02-01, Paris.

FAMILY with 3 young school-age children seeks for January young girl to help mother in WASHINGTON, D.C. (U.S.A.). Write: Madame GANAY, 52 Avenue Montaigne, 75008 Paris.

# CROSSWORD — Edited by Will Weng

**ACROSS**
1 Decorate anew
5 Whirlpool, in Scotland
9 Aid
13 Jewish month
14 Church court
15 Lad's date
16 "—— Like It Hot"
17 Soon
18 "—— Mad Mad . . ."
19 Oscar winner
22 Huzzah
23 Cry of discovery
24 Sandpiper
25 Maroon
28 Very old: Abbr.
30 Un.., ——, tres
33 Pasture sound
34 Indian nurse
35 Anger
36 Oscar winner
41 "The Snake ——"
42 Convey
43 Links area
44 Stout's relative
45 Compass point
46 Chemical compound
50 "Hallelujah —— Bum"
52 Friend of Curly and Larry
54 Flightless bird
55 Oscar winner
61 Bay
62 Fame locale
63 Glut
64 Med. course
65 —— -de-camp
66 Flag five-pointer
67 Shells out
68 Nellie and others
69 Monster's lair

**DOWN**
1 Outcome
2 Certain ladder-user
3 City eyesore
4 Spread
5 "The Grapes of ——"
6 Old Asia Minor region
7 Collar
8 Film-director Fritz
9 "—— Doesn't Live Here"
10 Part of RBI
11 He, in Naples
12 Russian leader
19 Relative of mayday
20 Aida's lover
21 Bunker and namesakes
26 Quantity: Abbr.
27 Ad ——
28 French soul
29 More snide
31 Western state: Abbr.
32 Sabbath talk: Abbr.
34 Tack on
36 Tax-form expert: Abbr.
37 Well or paint
38 Piano family
39 Chemical suffix
40 Pres. Wash.
47 Conductor Zubin and family
48 Moslem nobles
49 Capek play
51 Dwindles
52 Decaying
53 Eyes
55 Bloke
56 Hebrides island
57 Pequod skipper
58 Shadow
59 Org.
60 Foie-gras offering



# WEATHER

| | C | F | |
|---|---|---|---|
| ALGARVE | 16 | 61 | Cloudy |
| AMSTERDAM | 9 | 48 | Rain |
| ANKARA | 7 | 45 | Cloudy |
| ATHENS | 18 | 65 | Cloudy |
| BEIRUT | 7 | 45 | Cloudy |
| BELGRADE | 13 | 56 | Cloudy |
| BERLIN | 5 | 41 | Rain |
| BRUSSELS | 8 | 47 | Fair |
| BUCHAREST | — | — | Unavailable |
| BUDAPEST | 11 | 52 | Cloudy |
| CASABLANCA | 20 | 68 | Cloudy |
| COPENHAGEN | 5 | 41 | Cloudy |
| COSTA DEL SOL | 20 | 68 | Cloudy |
| DUBLIN | 6 | 43 | Fair |
| EDINBURGH | 3 | 38 | Fair |
| FLORENCE | 15 | 59 | Cloudy |
| FRANKFURT | 7 | 45 | Cloudy |
| GENEVA | 9 | 48 | Rain |
| HELSINKI | — | — | Unavailable |
| ISTANBUL | 16 | 61 | Cloudy |
| LAS PALMAS | 21 | 70 | Cloudy |
| LISBON | 13 | 56 | Cloudy |
| LONDON | 7 | 45 | Cloudy |
| LOS ANGELES | 11 | 52 | Cloudy |

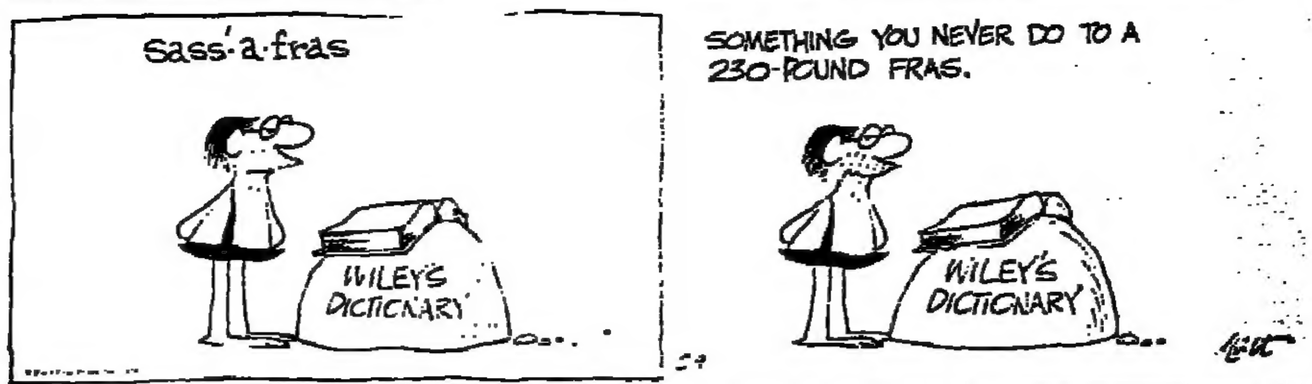
| | C | F | |
|---|---|---|---|
| MADRID | 12 | 54 | Cloudy |
| MILAN | 4 | 39 | Fog |
| MONTREAL | —19 | —2 | Cloudy |
| MOSCOW | 0 | 32 | Snow |
| MUNICH | 7 | 45 | Rain |
| NEW YORK | —3 | 26 | Sunny |
| NICE | 16 | 61 | Cloudy |
| OSLO | 3 | 38 | Rain |
| PARIS | 11 | 52 | Rain |
| PRAGUE | 6 | 43 | Rain |
| ROME | 17 | 63 | Cloudy |
| SOFIA | 6 | 43 | Rain |
| STOCKHOLM | 4 | 39 | Cloudy |
| TEHRAN | 0 | 32 | Cloudy |
| TEL AVIV | 22 | 72 | Cloudy |
| TUNIS | 20 | 68 | Cloudy |
| VIENNA | 8 | 47 | Rain |
| WARSAW | — | — | Unavailable |
| WASHINGTON | —1 | 31 | Snow |
| ZURICH | 6 | 43 | Rain |

(Yesterday's readings: U.S., Canada at 1700 GMT, others at 1200 GMT.)

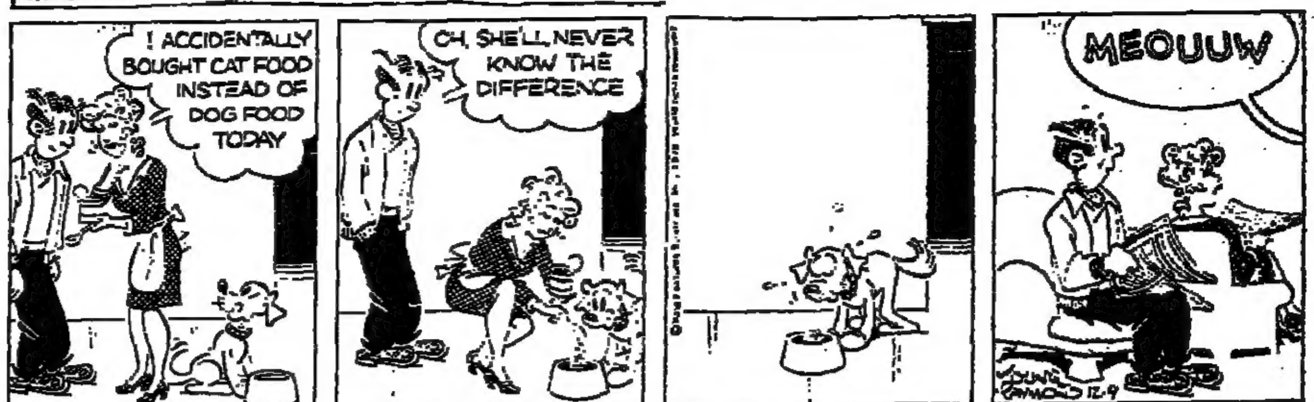


### PEANUTS

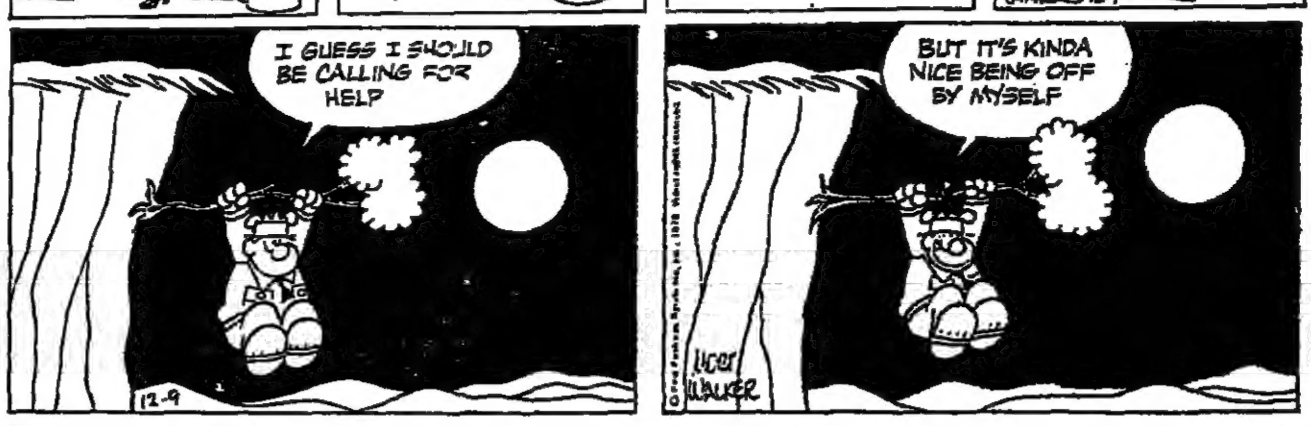

### B.C.




### BLONDIE




### BEETLE BAILEY




### WIZARD of ID


### ANDY CAPP


### REX MORGAN M.D.


### RIP KIRBY


### JUMBLE

THAT SCRAMBLED WORD GAME by Henri Arnold and Bob Lee

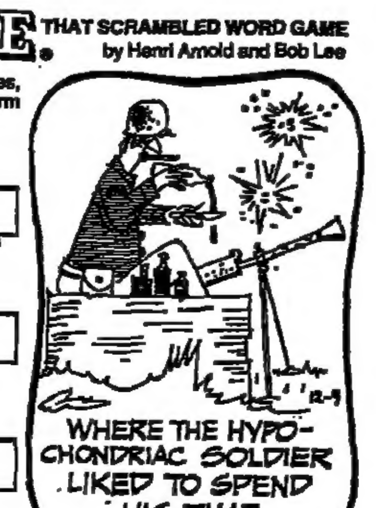
Unscramble these four Jumbles, one letter to each square, to form four ordinary words.

OXPRY

BANIC

LIEDEY

DYLGOO



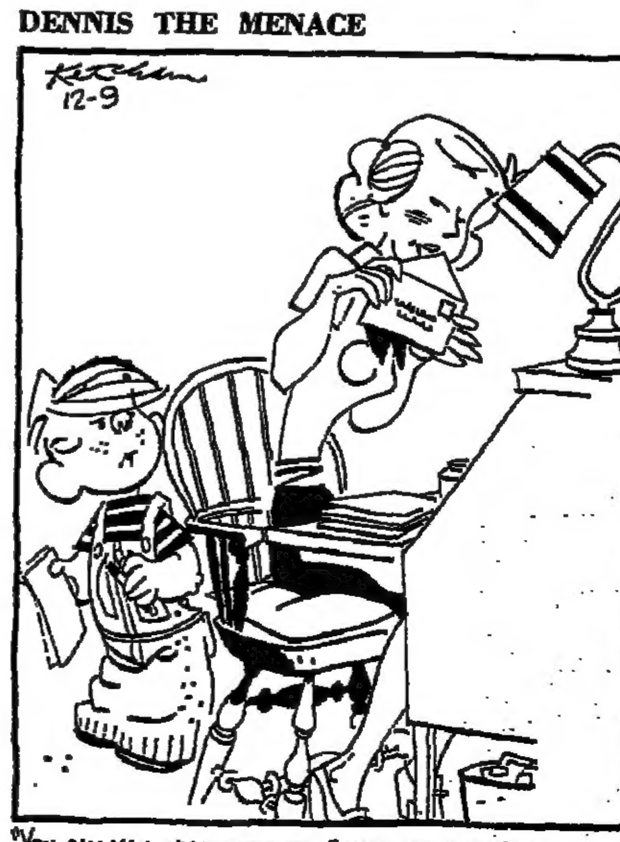

Now arrange the circled letters to form the surprise answer, as suggested by the above cartoon.

Answer here: IN A

(Answers tomorrow)

Saturday's Jumbles: YOUTH SANDY TALLOW VERSUS
Answer: A fine waste of the carpenter's work—SAWDUST

### DENNIS THE MENACE



"YOU CAN MAIL MY LETTER TO SANTA IF YOU WANT... BUT I'D FEEL BETTER IF YOU SENT IT STRAIGHT TO GRANDPA."

"Registered as a newspaper at the Post Office"
"Printed in Great Britain"

# BOOKS

## NORMAN THOMAS
### The Last Idealist

*By W. A. Swanberg. Scribner's. Illustrated. 528 pp.*

**Reviewed by Richard R. Lingeman**

IF Diogenes went around with a lantern looking for an honest man, Norman Thomas carried a spotlight at the ready to shine on whatever was the injustice of the moment. In a life of 84 incredibly crowded, busy, do-gooding years, he found a lot of dark corners in America, although the Socialist party to which he devoted his life did little directly about any of them. He was an evangelical reformer, but his most effective opponent was reform. Franklin D. Roosevelt did in the Socialists more than any Wall Street plutocrats—more even than the party's own internal schisms, says W.A. Swanberg, the author of this biography.

Swanberg calls his subject "the last idealist"; last or not, idealist he certainly was, in the old American grain, believing in Progress and Abundance. A preacher's boy from Marion, Ohio, he grew up to be a Socialist preacher in a slum parish who was married to a rich wife, and evolved into a preaching Socialist. If his later Marxism was less than scriptural, his earlier Presbyterianism was not strictly according to Calvin. Thomas embraced the Social Gospel early on, and that quickly took him, after his graduation from Princeton and ordainment, away from a cushy pastorate at Manhattan's Red Brick Church to the slums of East Harlem.

After a rough stint of pacifism during World War I, his disillusionment with religion's capacity to alleviate the social injustices he saw about him came to a head and he dropped the Gospel part, kept the Social and added an Ism. From then on it was preaching Socialism—a life of talk, talk, lectures, writing and, of course, running for president, which he did six times. During the 1944 election, a GI who didn't know him asked him whom he was voting for. Thomas replied that he was voting for himself, which pulled the GI up short until Mr. Thomas explained that he was the Socialist candidate for the presidency. The GI thought that over a moment, then said, "Well if you weren't running, who would you vote for?"

That was symbolic of Thomas's campaigns: People wanted his advice but they never wanted him. Many of the Socialist measures he advocated were adopted by the mainstream parties and, as Swanberg says, his chief role was that of an educator an… ser—as well as gadfl…

His causes came sort… bunches—Eugene Debs… Indians kicked off thei… kansas sharecroppers… he bore physical witne… siderable danger to… Japanese-Americans… War II (while the Am… Liberties Union remain… Yet much of his time… helping out indigent old… fighting a radical's de… even his neighborhoo… who, driven out of b… the supermarkets, took… ing libelous letters to… He kept an eye on the… as well as the hawks.

A biography of suc… risks the obvious peril… graphy, on the one han… chological or ideologic… tionism on the other. I… owe Swanberg some so… —at least the price of… for the seemingly artless… forward way he has… Thomas's life. There is… parent candor and fa… objectivity in his book… any trick camera angles… psychological crosscurr… dark eddies. He has… quietly passionate biogr… manages to make a g… plausible without sancti… —and Thomas was fa… saint, even an agnostic…

Not that Swanberg is… of partisanship, but fr… about a life that was… in so many sectarian di… can perhaps be forgiven… not always fully expo… cause of a Thomas oppon… as the "Old Guard" S… Most readers will care lit… those dusty internecine… and I feel that, in genera… Swanberg's portrait of M… as a leadership of the S… is very fair and certainly… critical. Here, after all… man who was titular h… party that in 1912 had… members and by 1942 w… to 3,000.

Nor does Swanberg… deeply with Thomas's tho… that is not a vital ma… Thomas was a nondo… pragmatic Socialist of w… observer said, "Any Rota… understand him," and a… English Socialist sized u… typical Social Democrat… Centre."

Surveying the mul… causes of Thomas's career… sight one might venture… was most often wrong—… was not often strong—w… was most embroiled in a… disputes invoking a pole… ideological reaction. Wi… built-in injustice detect… homed in on real, im… human suffering, he was… and invaluable.

*Richard Lingeman is… reviewer for The New… Times.*

**Solution to Previous Puzzle**

NAHA TRIO VISAS
IMAM RUNT ARTIE
RIGA ITCH WAISE
ACETIC HESPERUS
MONITOR ROE
OLOR TRAMPS
MAYFLOWER STOAT
OREL REBEC TORO
OGLED LUSITANIA
SOLDER SAVE
SIB TITANIC
MERRIMAC LEGATO
UBOAT HELI EVEN
TROVE INIA NEAT
TOTED ATEN ASSE

# BRIDGE — By Alan Truscott

Opening bids of three clubs or three diamonds are not common, but when they do occur the responder may face some tricky problems. If he has a strong hand with a singleton in partner's suit he has a delicate choice between three no-trump, in which dummy's long suit may be unusable, and a minor-suit game in which there may be three losers.

The solidity of the opener's suit is a key factor, and although he virtually denies a solid suit he could have anything from A-K-x-x-x-x to J-x-x-x-x-x-x-x. A convention to solve this rare problem was suggested a decade ago by an expert. He would probably be surprised to learn that two players with long memories used his idea recently and is shown in the diagram.

The three-heart response to three diamonds conventionally asked South to describe the quality of his diamonds, and the rebid showed a suit that included the ace or king, but not an A-K or A-Q combination. With the latter holdings, the rebid would have been three no-trump, and with a weaker suit four clubs or four diamonds, depending on the length of the suit.

North decided against three no-trump, and temporized with four clubs. South's hand was better than it might have been to the extent of the two red queens, so he tried five diamonds.

West led the heart jack, and South won in dummy and… diamond jack. It would u… helped West to hold up. H… to win, and South had no… in drawing the remaining… and disposing of his p… club loser.

In the post-mortem, it… clear that a club lead woul… defeated the contract, fo… can later manage a club… spade lead and a club… would not have helped… South would dispose of tw… from his hand before p… trumps.

In the replay, North… three no-trump and was de… when East led the spade… West held up his diamon… and the declarer had no… come close to nine tricks. H… er, it is far from clear tha… diamonds was a better co… than three no-trump.

NORTH
♠ K Q 6 4
♡ A K 5
◇ J
♣ A K 8 7 2

WEST
♠ J 9 3 2
♡ J 10 8
◇ A 4
♣ Q 10 5 4

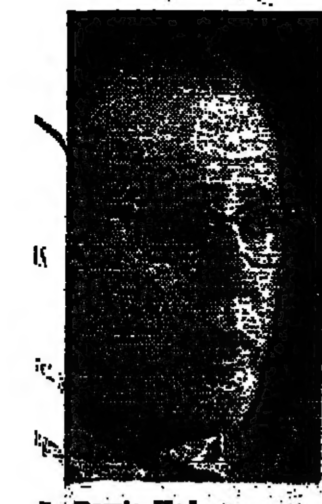
SOUTH (D)
♠ 5
♡ Q 3
◇ K Q 9 8 7 6 5 2
♣ 8 5 3

Neither side was vulnerable. The bidding:

| South | West | North |
|---|---|---|
| 3 ◇ | Pass | 3 ♡ |
| 4 ◇ | Pass | 4 ♣ |
| 5 ◇ | Pass | Pass |

West led the heart jack.

# ʒaseball Czar to Propose A's Shift to National League, Move to Washington



Bowie Kuhn

*lobbying.*

By Nancy Scannel

LOS ANGELES, Dec. 8 (WP).—Baseball commissioner Bowie Kuhn said yesterday that he will introduce a plan to have the Oakland A's shift from the American to the National League and move to Washington.

Working behind the scenes with some allied club owners, Kuhn said he would make his unprecedented proposal to a joint meeting of the leagues. A vote may be held tomorrow.

Meanwhile, The Washington Post learned that the staff of the House Select Committee on Professional Sports will recommend Friday that the committee vote to recommend Congress remove baseball's anti-trust immunity.

The committee, formed to inquire into the relationship between the law and professional sports, has been leaning in that direction. A vote is scheduled Friday morning, but no action is expected until the next congressional session.

A committee source said there is a possibility that the panel might reject the staff's recommendation if it appears that baseball really is ready to give Washington a team "instead of asking for more time to work things out."

But the source said the committee may still vote to recommend lifting baseball's immunity regardless of Washington's status.

At the same time that the commissioner was lobbying for his proposal, Charles Finley, the A's owner, told the Associated Press he had never heard of the plan and shrugged it off as a joke.

But, according to some owners, Finley has been involved in the discussions and there have been suggestions that approval of the plan is contingent on his dropping a lawsuit against Kuhn and the major leagues.

The suit, scheduled to go to trial in Chicago Monday, was filed after Kuhn nullifield Finley's $3.5-million sale of three Oakland players to the Boston Red Sox and New York Yankees in June.

Kuhn said at the time that the sale was not in the best interest of baseball, claiming it threatened to destroy balance between the affluent and poorer clubs.

Finley's attempted sale of Vida Blue, Joe Rudi and Rollie Fingers was also viewed as a move that would further strip the once-dominant three-time World Series champs. It also increased speculation that Finley wanted to get out of baseball.

The A's and their NL neighbor, the San Francisco Giants just across the bay, have been losing money and attendance consistently, in part because of their competition for fans—universally regarded as an unhealthy situation for baseball.

The thinking among some club executives here is that Finley, who has been in poor health recently, would sell the club rather than retain ownership if it were moved to Washington.

Some NL clubs reportedly might not go along with the proposal unless Finley agrees to drop his suit. "I would say there is a likelihood, a probability, a possibility that he'd drop it," said Dan O'Brien of the Texas Rangers.

### Oakland Contract

Others, who asked not to be identified, raised questions about whether the two leagues would have to help Finley but the A's contract with Oakland Coliseum, which runs until 1983.

There is an irony in that the plan, if approved, would put longtime advesaries Kuhn and Finley in a position of helping each other out of some vexing problems.

Kuhn would not comment on how his proposal was being greeted but the idea appeared to have a fair amount of support among the owners, particularly in the AL.

Since the plan would create two 13-club leagues, there would be some need for limited interleague play—which the AL has sought and the NL has fought.

But because the plan would resolve the San Francisco-Oakland problem and fulfill Kuhn's promise to return baseball to Washington—without having to go to expansion—there is some growing support in the NL.

NL president Charles (Chub) Feeney said he could not predict how the league might vote but suspected it would require unanimous approval of the 12 clubs.

Since there is also a move under way in the NL to change the unanimous-consent rule for making changes in the league constitution, a fight over this procedural matter could doom Kuhn's plan.

### Taken by Surprise

In the AL, a three-quarters vote of approval would be required. AL president Lee MacPhail could not be reached for comment.

Probably taken most by surprise by the plan was Jerold Hoffberger, owner of the AL's Baltimore Orioles, who learned of the proposal through the news media. Hoffberger would have veto right over another AL club coming into Washington—thus, Kuhn's plan calls for the A's to switch to the NL.

"I'll tell you what else they're recommending," Hoffberger said. "They're recommending that I become captain of the Graf Zeppelin, that aircraft that couldn't fly and crashed some decades ago. It would make as much sense.

"This thing is utterly ridiculous."

# ꟷIL Capitals Learning ꟷow to Use Advantage

…OVER Md., Dec. 8 (UPI).… penalties to Washington … opponents have been … with moans from the …ckey fans.

…eason is that the caps … get into more trouble …ey cause when they own …n advantage. They have …p nine goals and scored …ghs on the power play. …those moans turned to …ast night as the Capitals …ed on three power-play …nities in beating the Van… Canucks, 4-3.

…n't know what the differ… our power play is," said …arron, who scored the sec… …wer-play goal and made the …ist on the final score, Ace …s game winner. "We work… puck around well, and I … that was the key. Any… you get good movement, … going to succeed."

…h Tom McVie also had no … for the Capitals' sudden wealth of man-advantage goals.

"I didn't see anything that different out there," McVie said. "We've moved the puck well at times before, but the penalty killers had been doing a good job. Tonight the shots just went in."

Capitals' rookie Rick Green opened the power-play parade with a 45-foot slapshot that gave Washington a 1-0 lead. Vancouver's Boby Lalonde tied the game later in the first period and Washington's Rick Bragnalo and the Canucks' Gary Monahan traded second-period goals before Charon banged in another power-play marker with 46 seconds left in the period.

The goal was Charron's 18th of the year and his 4th in as many games.

The game appeared destined for a tie as Monahan scored again early in the third period but Bailey neatly converted Charron's pass from behind the net for the evening's third power-play goal and the Caps' eighth triumph of the season against 15 losses and 4 ties.

### Penguins 6, North Stars 2

At Pittsburgh, center Ron Schock scored two goals to lead the Penguins to a 6-2 victory over Minnesota.

Schock, who failed to score since the opening game of the season, broke a 25-game goalless draw with two goals, 37 seconds apart, midway through the third period. Both goals were set up by passes from linemates Mike Corrigan and Rick Kehoe.

Corrigan had given Pittsburgh a 4-1 lead with his sixth goal of the season at 4:49 of the third period. Kehoe also assisted on Corrigan's goal.

Rookie Blair Chapman and Wayne Bianchin opened the scoring in the first period, as the Penguins jumped to a 2-0 lead. Dean Talafous and Bill Hogaboam scored for the North Stars, while Jean Pronovost rounded out Pittsburgh's scoring.

### Islanders 3, Blues 2

At Uniondale, N.Y., Clark Gillies and J.P. Parise scored goals less than three apart early in the third period to give the New York Islanders a 3-2 victory over St. Louis.

Gillies tied the game, 2-2, when he batted in a Bob Bourne rebound at 1:30 of the period and Parise scored the game-winner on the rebound of a Jean Potvin shot with five seconds left on a hooking penalty against the Blues' Garry Unger.

Bob Nystrom closed the scoring with 3:07 left in the game with his team-high 13th goal of the season as the Islanders' increased their first-place lead in the Patrick Division to five points over the idle Philadelphia Flyers.

UPI.

Pete Scamurra (left) of the Capitals and Bob Dailey of the Canucks battle for puck.

# ꟷanish Teams ꟷuarterfinals ꟷUEFA Soccer

…S, Dec. 8 (Reuters).—…claimed two places tonight … last eight of the UEFA …hen Barcelona and Athle… Bilbao joined England's …s Park Rangers, who … their berth 24 hours …

… Germany, Greece and …also kept entries in the …finals, as Magdeburg, AEK … and Juventus survived …leg matches of varied …ess.

…lona built on the 3-0 lead …taken over Oester Vaexjoe …den with a 5-1 victory in … tonight. A third-minute …y Manuel Clares set the …utch captain Johan Cruyff …an Asensi piled on first-…als and Asensi made it …efore Oester savored a … of glory 26 minutes from …d when Tommy Evesson …one back.

…co Bilbao's progress was …jestic. Starting 3-1 up …e home leg, it held Milan …oalless first half but the … crowd spurred its team …rming second half. Milan … when Calloni scored on …lty kick—his second goal … minutes from time.

… with three minutes left, … Roja was fouled in the …i Madariaga scored deci-…rom the penalty. Milan …thout Fabio Capello.

…tus salvaged Italian honor …ing Schachtor Donetzk to …oal victory in the Ukraine …Shevlyuk's goal 10 minutes … halftime threatened to …e 3-0 lead that Juventus …en in Turin. But for the …the match, counterattacks …ranco Causio and Roberto …gna looked as likely to … a goal as the Ukrainian …

…elgrade, Crvena Zvezda …ar) beat AEK of Athens, … AEK advanced on the … aggregate.

## …llege Basketball

TUESDAY'S GAMES

EAST

…a. 72, Connecticut 71.
…4, Boston U. 67.
…St. 84, Muhlenberg 45.
…3, Virginia 84.
…irginia 97, Duquesne 82.
… Brown 70.

SOUTH

…1, Tennessee 78

MIDWEST

…ame 105, Northwestern 78.
…82, Indiana St. 88.
…88, Missouri 59.

SOUTHWEST

…st La. 74, Louisiana Tech 65.
… N.C.-Greensboro 65.
… and M 100, Sam Houston 83.

WEST

…a St. 97, Great Falls 70.
…o. 46, Air Force 45.

## NHL Standings

CAMPBELL CONFERENCE

Patrick Division

| | W | L | T | Pts | GF | GA |
|---|---|---|---|---|---|---|
| N.Y. Islanders | 17 | 7 | 3 | 37 | 94 | 64 |
| Philadelphia | 13 | 7 | 6 | 32 | 93 | 74 |
| Atlanta | 13 | 8 | 6 | 32 | 92 | 81 |
| N.Y. Rangers | 12 | 11 | 5 | 29 | 109 | 98 |
| **Smythe Division** | | | | | | |
| St. Louis | 12 | 13 | 2 | 26 | 80 | 99 |
| Chicago | 10 | 14 | 3 | 23 | 88 | 99 |
| Colorado | 8 | 16 | 3 | 19 | 76 | 93 |
| Minnesota | 6 | 17 | 4 | 16 | 74 | 122 |
| Vancouver | 7 | 20 | 2 | 16 | 75 | 113 |

WALES CONFERENCE

Norris Division

| | W | L | T | Pts | GF | GA |
|---|---|---|---|---|---|---|
| Montreal | 21 | 4 | 4 | 46 | 141 | 82 |
| Los Angeles | 9 | 11 | 9 | 27 | 96 | 93 |
| Pittsburgh | 10 | 12 | 5 | 25 | 81 | 90 |
| Detroit | 8 | 14 | 4 | 20 | 70 | 87 |
| Washington | 8 | 15 | 4 | 20 | 78 | 110 |
| **Adams Division** | | | | | | |
| Boston | 19 | 6 | 2 | 40 | 107 | 81 |
| Buffalo | 14 | 7 | 3 | 31 | 81 | 60 |
| Toronto | 12 | 9 | 6 | 30 | 103 | 91 |
| Cleveland | 6 | 14 | 7 | 19 | 68 | 91 |

Tuesday's Games

Washington 4, Vancouver 3 (Green, Bragnalo, Charron, Bailey; Monahan 2, Lalonde).

N.Y. Islanders 4, St. Louis 2 (Westfall, Gillies, Nystrom, Parise; Berenson, Plante)

Pittsburgh 6, Minnesota 2 (Schock 2, Chapman, Bianchin, Pronovost, Corrigan; Talafous, Hogaboam).

## WHA Standings

EAST

| | W | L | T | Pts | GF | GA |
|---|---|---|---|---|---|---|
| Quebec | 16 | 11 | 1 | 33 | 127 | 106 |
| Indianapolis | 15 | 10 | 2 | 32 | 93 | 102 |
| Cincinnati | 14 | 9 | 2 | 30 | 117 | 90 |
| Minnesota | 11 | 12 | 4 | 26 | 86 | 83 |
| New England | 9 | 14 | 4 | 22 | 89 | 102 |
| Birmingham | 8 | 21 | 1 | 17 | 99 | 121 |
| **WEST** | | | | | | |
| Winnipeg | 17 | 11 | 1 | 35 | 138 | 98 |
| San Diego | 14 | 10 | 2 | 30 | 87 | 89 |
| Houston | 12 | 8 | 4 | 28 | 81 | 69 |
| Phoenix | 12 | 14 | 2 | 26 | 95 | 117 |
| Edmonton | 12 | 16 | 1 | 25 | 82 | 106 |
| Calgary | 10 | 14 | 2 | 22 | 80 | 83 |

Tuesday's Games

Winnipeg 4, Phoenix 2 (Miller 2, Hedberg, Moffatt; Repo, Mononen).

Indianapolis 3, Birmingham 2 (Harris, Maggs, McDonald; Marrin, Jacques).

Minnesota 4, New England 2 (Deadmarsh, Gallant, McDonough, Antonovich; Webster, Backstrom).

Edmonton 4, Quebec 2 (Boody, Norris, Ullman, Russell; Tardif 2).

# NBA Cavs Even Road Record With Sharpshooting Victory

OAKLAND, Calif., Dec. 8 (UPI).—The Golden State Warriors hardly needed the home edge last night in dispatching the Cleveland Cavaliers. The revived Warriors sank 55 per cent of their field-goal shots in coasting to a 120-104 NBA victory, their fifth straight.

For Golden State, it was a matter of sharpshooting by forward Rick Barry (37 points), guard Charles Johnson (22), slick ball handling, running and hard work.

"There's really no secret to it," said Johnson, who came off the bench to eclipse his previous season high of 21 points. "Shooting well is just a lot of hard work. Cleveland has been holding a lot of people under 100 points by controling the tempo, but we didn't let them do it tonight."

The loss evened the Cavaliers' road record at 7-7—they are 16-7 overall.

Warrior coach Al Attles explained before the contest why he thought road records around the league might improve:

"I'm amazed like everyone else about the exceptionally high percentages of home teams this year. Support from fans gets home teams going. But in modern arenas teams don't practice at home often enough to have the kind of advantage a college team may have at home.

"It's early yet. Things may even out. Last year we were good on the road. This year for a while I thought we'd never win away from home."

The Warriors, 2-6 on the road, improved their overall mark to 12-10 with a performance reminiscent of their run for the NBA title two seasons ago and the best regular season record of the 1975-76 campaign.

"The big thing is that we're running as well as we ever have," said Barry. "If we could only sustain ourselves and do it more often it would be remarkable."

Barry scored 14 points in the first quarter, 10 in the second, made all 13 foul shots and had 8 assists.

The Cavaliers, who seemed unable to keep up with the Golden State running game, were paced by Campy Russell with 24 points and Bobby Smith and Austin Carr, with 16 apiece.

### Jazz 110, Sonics 98

At New Orleans, Aaron James hit 18 straight point at the end of the third quarter to lead the Jazz to a 110-98 victory over Seattle.

James, who led all scorers with a career-high 36 points, had a team-record 12 consecutive field goals in the third and fourth quarters as the Jazz pulled away.

James's surge brought New Orleans from a 58-58 tie with 9:50 left in the third period to a 76-68 lead at the end of the quarter.

### Bulls 89, Lakers 81

At Chicago, Mickey Johnson and Artis Gilmore each scored 22 points to lead the Bulls to a come-from-behind 89-81 victory over Los Angeles.

The Lakers scored the last eight points in the third quarter to build a 70-63 lead. But Chicago came back to outscore the Lakers, 11-1, in the first four minutes of the final quarter to take a 74-71 lead. Norm Van Lier sparked the Bulls in the final quarter when he got 10 of his 12 points.

### Pacers 107, Braves 103

At Buffalo, Dave Robisch hit four free throws in the last 13 seconds to ruin a 42-point, 29-rebound performance by Buffalo's troubled superstar, Bob McAdoo, and carry Indiana to a 107-103 victory over the Braves.

Robisch's left-handed tosses from the 15-foot line came after McAdoo four times pushed Buffalo ahead in the closing minutes of the game.

But McAdoo, gunning in a personal season high point total as well as a team record in rebounding, missed two free throws with 24 seconds remaining that would have put Buffalo on top.

For the 6-10 center-forward, who is having a contract dispute with Braves co-owner Paul Snyder, it may have been his last game in a Buffalo uniform. Snyder said he expects to resolve soon the question of whether McAdoo stays or is traded to the New York Knicks.

### Blazers 111, Knicks 94

At New York, Maurice Lucas scored 22 points, Lionel Hollins added 20 and Portland took advantage of poor New York shooting as the Trail Blazers defeated the Knicks, 111-94.

The victory was the fifth straight and the first in Madison Square Garden for the Pacific Division leaders.

Portland opened an 81-61 lead by outscoring the Knicks 36-21 in the third quarter. Lucas scored 9 and Bill Walton 8 in the quarter, which included an 11-0 Portland burst near the end of the period.

### Nuggets 122, Bucks 115

At Denver, guard David Thompson scored a game-high 27 points and Dan Issel added 24 as the Nuggets defeated struggling Milwaukee, 122-115.

Thompson scored 17 of his points in the first half as Denver, leader of the Midwest Division with a 16-7 mark, jumped to a lead of 63-54.

High scorer for the Bucks, who have lost 15 straight games on the road, was Junior Bridgeman with 22 points.

## NBA Standings

EASTERN CONFERENCE

Atlantic Division

| | W | L | Pct | GB |
|---|---|---|---|---|
| Boston | 12 | 9 | .571 | — |
| Philadelphia | 12 | 9 | .571 | — |
| N.Y. Knicks | 10 | 13 | .435 | 3 |
| Buffalo | 10 | 13 | .435 | 3 |
| N.Y. Nets | 10 | 13 | .435 | 3 |
| **Central Division** | | | | |
| Houston | 14 | 5 | .737 | — |
| Cleveland | 16 | 7 | .696 | — |
| New Orleans | 14 | 10 | .583 | 2 1/2 |
| San Antonio | 11 | 12 | .478 | 5 |
| Washington | 9 | 12 | .429 | 6 |
| Atlanta | 7 | 16 | .304 | 9 |

WESTERN CONFERENCE

Midwest Division

| | W | L | Pct | GB |
|---|---|---|---|---|
| Denver | 16 | 7 | .696 | — |
| Detroit | 12 | 11 | .522 | 4 |
| Kansas City | 12 | 12 | .500 | 4 1/2 |
| Indiana | 11 | 13 | .458 | 5 1/2 |
| Chicago | 4 | 14 | .222 | 9 1/2 |
| Milwaukee | 4 | 22 | .154 | 13 1/2 |
| **Pacific Division** | | | | |
| Portland | 17 | 6 | .739 | — |
| Los Angeles | 12 | 10 | .545 | 4 1/2 |
| Golden State | 12 | 10 | .545 | 4 1/2 |
| Seattle | 13 | 12 | .520 | 5 |
| Phoenix | 8 | 10 | .444 | 6 1/2 |

Tuesday's Games

Golden State 120, Cleveland 104 (Barry 37, C. Johnson 22; Russell 24, Carr 16, Smith 16).

Denver 122, Milwaukee 115 (Thompson 27, Issel 24, Bridgeman 22, Winters 18).

Chicago 89, Los Angeles 81 (Johnson 22, Gilmore 22; Russell 18, Allen 18).

New Orleans 110, Seattle 98 (James 36, Goodrich 15, Griffin 15; Watts 22, Brown 18).

Indiana 107, Buffalo 103 (Green 2?, Robisch 20; McAdoo 42, Shumate 18)

Portland 111, New York Knicks 94 (Lucas 22, Hollins 20; Haywood 19, Monroe 17).

## Baseball Appears Healthy

# Free-Agent Draft Defies Pessimists

By Murray Chass

NEW YORK, Dec. 8 (NYT).—Four weeks and about $21 million after the historic free-agent draft, where does baseball stand? Well, for one thing, it does stand, which puts the sport in a healthier position than its doomsday prophets had predicted. Some owners, of course, continue to warn that the structure of the game will crumble under the weight of the dollars that suddenly are flowing into the players' pockets, but don't try to convince George Steinbrenner, Gene Autry of Ray Kroc of that dire forecast.

These aggressive, heavy spenders own, respectively, the New York Yankees, the California Angels and the San Diego Padres—three of the nine clubs that signed the 14 high-quality players in the first class of free agents under the new rules. Two lesser players—Steve Stone and Eric Solderholm—have also signed leaving nine free agents available.

Six of the players who remain at large were selected by a varying number of clubs in the negotiation-rights draft Nov. 4—Richie Hebner, Tito Fuentes, Tim Nordbrook, Billy Smith and Paul Dade, all infielders, and Royle Stillman, an outfielder. Then there are Dick Allen, Willie McCovey and Nate Colbert, who were not selected by anyone and therefore are free to sign with any team.

Reggie Jackson was the last of the 14 stars to sign with a new team, which wasn't surprising. Jackson has a flair for the dramatic. It just wouldn't have seemed in keeping with his character for him to sign somewhere in the middle of the pack.

"I did it my way," Jackson explained. "There were certain things I wanted to do, certain things I wanted to hear, certain things I wanted to sort out in my mind. I wanted to step back and get perspective."

If one looks at the free-agent situation from an overall perspective, certain conclusions can be drawn, certain realities can be discerned from the revolutionary process that baseball has experienced the last four weeks.

For one thing, there was the relative aggressiveness of the teams in competing for the top-caliber, top-money free agents. The teams can be classified in these categories:

- Successful in signing the 14 stars: California (three), Yankees (two), San Diego (two), Texas (two), Montreal (one), Cleveland (one), Milwaukee (one), Atlanta (one) and Boston (one).
- *Aggressively,* although unsuccessfully, competitive: Pittsburgh, Chicago White Sox, San Francisco and Los Angeles (the Dodgers sought only Don Gullett).
- Fairly competitive: Kansas City, Philadelphia and Baltimore.
- Mildly, although not realistically, competitive: Mets, St. Louis and Detroit.
- Sat it out: Oakland, Minnesota, Houston, Chicago Cubs and Cincinnati (the Reds drafted no one).

Some footnote should be added. Of the teams that signed one star, Montreal was the most aggressive in trying to snare a second, making a huge offer to Jackson and an outstanding one to Gary Matthews, while Boston and Atlanta didn't truly compete for a second. The Red Sox did not even go after Bobby Grich, who could have solved the second-base problem.

The Dodgers probably could have signed Jackson but never offered serious competition.

The White Sox tried valiantly for certain players but couldn't match some of the higher bidders and had to settle for two lesser free agents. Pittsburgh aggressively sought Sal Bando and Rollie Fingers, and even offered Bando more money than he took in signing with Milwaukee. San Francisco also went all out, and came close on Fingers and Joe Rudi.

Baltimore *made efforts to retain* its three stars—Jackson, Grich and Wayne Garland—but didn't really seek anyone else's stars.

# Skiing Postponement Causes Grumbling After Race Begins

By Bernard Kirsch

VAL D'ISERE, France, Dec. 8 (IHT).—The fastest today were saddest and the slowest smiled as three officials and mother nature delayed the opening of the World Cup ski season.

The grumbling on the mountains began when the women's downhill was canceled after it had started. The verdict to have a do-over tomorrow was made by a jury consisting of an American, a West German and a Swiss. They blamed fickle winds for the decision, and pointed to "irregular and unusual times." Their women had finished well behind a pair of unknown Austrians; an Iranian was third, a Briton broke the top 10; all very weird in a sport which has few upsets.

The Briton who went well, Valentina Iliffe, said: "They had no right to cancel the race," she said that skiers from the top countries did not get the results they had expected and that's why the decision was made.

It was the first time that a World Cup race had been called off after it had started. Events are canceled because of dangerous racing conditions; that was not the case today. The winds and the new snow made the course slower. Austrians Elfi Deufl and Brigitte Habersatter managed to handle it, finishing first and second, and after their initial disappointment also managed to hang on to their humor. Deufl, 19 and a comer on the team, said, "There were cross winds and side winds. But I like sailing. I have a catamaran."

### Another Chance

Given a reprieve were Annemarie Proell-Moser of Austria and American Cindy Nelson. Proell, now svelte rather than thickly muscular, finished 5 seconds behind her countrywoman in her return to the World Cup circuit which she once dominated. She sat out last year.

Nelson, the American Olympic bronze medalist in this event, finished 9 seconds off the leader. She was the ninth skier to start, and the American on the race jury, women's coach John Bowerman, said the decision for cancellation was made after 10 skiers had raced. But communications in the Alps were slow moving and 20 more skiers took their turns before the decision was passed along.

Before Nelson heard of it, she had called today's race "ridiculous." She said that wind and snow had almost erased the course and officials had to set down pine boughs as markers.

### 35 Seconds Behind

"There's one race like this every year," said Nelson, who referred to a catastrophe last year in Austria when she finished 35 seconds behind the winner and the result held.

"I just hope there are no more like this one."

There will be another chance for the bizarre to occur when the women try the giant slalom. At first, both the downhill and giant slalom were set for tomorrow, but one of the week's many protests again changed the schedule—an Italian coach saying that two races in one day would be too much for the women, who, after today's race was canceled, went off to do their jogging, play soccer, train, train.

The wind and falling snow was no bother. Said an American sage:

"Maybe the trouble with skiing is that it's held outdoors."

## Art Buchwald

# Who's In, Who's Out

WASHINGTON—The big game in Washington these days is who is "in" and who is "out" in the Carter administration. It seems to change every day and it's giving lobbyists and other power seekers conniptions.

At lunch the other day I overheard four people talking at the next table and it went like this:

Buchwald

"I hear if you want to get to Carter you have to see Rhett Butler."

"No, he's been out for two weeks. If you want to get anything done you have to talk to Charley Winkler." "Carter doesn't talk to Kinkler anymore."

"Why not?"

"Winkler had a fight with Hamilton Jordan and Jordan axed him with Carter. If you want to get anything done you have to get to Phil Stromberg in Atlanta."

* * *

"Forget Stromberg. He canceled a luncheon date with Jody Powell, and Powell is putting out the word that Stromberg can't even get a motel room in Americus, Ga. The only one Carter listens to now is Henry Kleinberg of the Savannah Coca-Cola bottling plant."

"That was Thursday. Kleinberg is no longer in the inner circle because he didn't show up for Sunday school in Plains last weekend."

"Well, if it isn't Kleinberg, who is it?"

"I hear the guy with all the clout is Horace Bromide, a banker from Pecksville. He was in the Peace Corps with Miss Lillian."

"Don't waste your time on Bromide. Carter hasn't taken a telephone call from him in a month."

"Where did you hear that?"

"From Sarah Collins, Russell Halliburton's secretary. Halliburton is the only person Carter listens to these days."

"I thought Halliburton blew it the day before the election when he lost Carter's luggage in Shreveport."

"But he's back again because Billy Carter put in a good word for him."

"I heard Billy Carter was out."

"When did you hear that?"

"He overcharged Jimmy for a lube job at his gas station and Jimmy said that was the last straw."

* * *

"Well, if Billy Carter is out, who is in?"

"Amy Carter's still in but the Secret Service has orders to keep everyone away from her."

"What a mess. We have a new administration coming in and nobody knows who to talk to."

If you want a job, the guy to see is Jack Watson."

"Watson's out because he got Jerry Rafshoon mad at him."

"Then Rafshoon must be in."

"Not necessarily. Charley Kirbo gave Rafshoon the cold shoulder at National Airport last week. I hear Cy Vance is in. He slept in Carter's house overnight in Plains. Carter wouldn't let him sleep in the house if he didn't trust him. He may trust him as secretary of state but not enough to play softball with him."

"Clark Knopf is in."

"Who told you?"

"Clark did."

"Then he's out. Anyone who tells you he's in with Carter is automatically out."

* * *

"What about Terence O'Hara? He's been advising Carter on economic affairs."

"He was until he told the President-elect he had to wear tails at his inauguration. O'Hara hasn't been to Plains since."

The headwaiter delivered a phone to the table.

One of the men took the call. "Are you sure?" he said. "You're positive? You'll stake your life on it? Thank you."

He turned to the others. "I just got the word. Walter Cronkite is in."

"Then that means Barbara Walters is out?"

"It looks that way."

"I'll have to cancel my lunch with her tomorrow."

### Neolithic Painting Found

MOSCOW, Dec. 5 (UPI).—Soviet archaeologists have found a fragment of a Neolithic wall painting 8,000 years old, according to the weekly Nedelya magazine. The painting, a deer-hunting scene, was unearthed in Tsedzhidepe, a town in the central Asian republic of Turkmenia.

# One of the Few Remaining Rail Barons in the U.S.

By Charles Hillinger

CUCAMONGA, Calif.—Redfield (Tad) Finlay Jr. is a private rail car baron.

He owns and operates one of the largest fleets of private rail cars in the United States, leasing them for $250 to $500 a day to corporations, film companies and individuals and putting together his own tours.

"Ever since my wife, Bets, and I were first married we dreamed about owning our own private rail cars," explains the 56 year-old North Hollywood man. "We started our collection 20 years ago. Our daughter Ann, now 25, grew up in a lower berth."

His seven rail cars were originally built as prestige coaches for railroad presidents. Now, they are parked on a special siding in Cucamonga—a stretch of track on 3 1/2 acres owned by Finlay.

At the end of the track is a maintenance shop where railroad tradesmen—electricians, plumbers, pipefitters—service the plush cars. Seven members of the Brotherhood of Sleeping Car Porters are employees.

One of them, Virgil Smock, 60, a sleeping-car porter since his teens, has worked for Finlay since the day he purchased his first private rail car, La Marguerita de Oro, in 1956.

The luxury cars are run throughout the United States, Canada and Mexico, pulled by regular passenger trains or by all-Finlay coach specials.

One of Finlay's cars is the Elihu C. Redfield Lounge Car, named after his great-grandfather, who died in 1917 after spending his life as an engineer for the Missouri Pacific Railroad. "I think my love for rail cars stems from my lifelong fascination with my great-grandfather, who died before I was born," Finlay says.

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Los Angeles Times.

Redfield Finlay jr. and one of his private rail cars.

# The Line That Shattered a U.S.-Soviet Production

By David K. Shipler

MOSCOW, (NYT)—Last June, after a U.S. production team finished filming a documentary on the Kirov Ballet's renowned school in Leningrad, an ebullient reception was held at a Moscow hotel—all champagne and brotherly love.

The Russians told the Americans what nice, cooperative, friendly people they were, and the Americans gave the Russians their deepest thanks for the freedom and ease with which they had been able to work.

Amid the free-flowing superlatives, Earle Mack, a New York financier who had backed the film, said he hoped it would be just the first in a series on Soviet ballet. Some of the Russians said they hoped so, too.

But with the film edited and the narration written, the Soviet-American good cheer has gone tumbling down in a heap of mutual misperceptions.

The fundamental differences between the two societies became manifest over a single line in the script, sweeping away a layer of illusion that arose because each side had assumed that its intellectual and political perspectives had been accepted by the other.

The disputed line was a reference to three prominent dancers who trained at the Kirov school—the Vaganova Institute of Choreography—and who defected to the West: Rudolf Nureyev, Natalya Makarova and Mikhail Baryshnikov.

The Soviet State Committee for Television and Broadcasting demanded that the three names be deleted from the script, according to Ted Landreth, a consultant to the producer.

When the Americans refused, he said, the committee withdrew its endorsement of the film, canceled a scheduled premiere in Moscow and even balked at accepting a $15,000 fee that Mack had contracted to pay for filming rights.

The documentary will still be distributed in the West, but without being labeled a joint production.

From an American viewpoint the reference was innocent enough, and absolutely essential to the integrity of the film. It supported the inescapable fact, as the camera focused on a gallery of photographs of leading graduates, that some pictures were missing. The names were mentioned. To ignore them, Landreth said, "in terms of our principles would have been something of a fraud."

Officials from the state committee and the Ministry of Culture had seemed delighted when they saw the cut film without narration, Landreth said.

A copy of the script had been provided. Only at the final meal, after a December date for the premiere had been set, Landreth related, "just at the point where we were about to jump up from our dinner and embrace, a young guy I thought was just a translator said that this line would have to be taken out, whereupon we all sat down and talked again for two hours."

The Russians must have realized that any U.S. documentary on the school would have to mention the defecting dancers, Landreth said, adding: "I suppose I was somewhat naive to think that they had addressed themselves to it months ago. They have been at this eight months. I just thought they must have reviewed the subject."

In any event, the Soviet objections will have no effect on the documentary, Mr. Landreth said. Princess Grace of Monaco has been asked to narrate the English-language version. Two prints, minus narration, will be delivered to the Russians, as previously agreed, so they can provide their own narration.

# PEOPLE: Word From Hawaii: No Kingship for A[...]

Hawaii is to be spared Idi Amin. It seems that the petition "signed by 175 Hawaiians" who wanted the Uganda leader to lead them to "freedom" was not a petition but a phone call. A group of University of Hawaii Law School students were having a party, the way Don Dzura tells it. "We had been laughing about this article we'd read in which he said he was prepared to be king of Scotland. Somebody said 'What the hell, if he's good enough for Scotland, he's good enough for Hawaii.'" The group telephoned Entebbe and made the proposal to one of Amin's aides. The next morning Amin himself called back, reaching Dzura's roommate, who had not been in on the prank: "We had a leisurely five or six-minute conversation in which I denied any offer for kingship," said the roommate, who refused to be identified. He did say, however, that Amin was very interested in becoming king of Hawaii and seemed more than willing to go there to take over.

* * *

Actress Sarah Churchill has been accused by a Chicago publishing firm of breach of contract for keeping a $15,000 advance for an autobiography that remains to be written. The suit against the late Winston Churchill's daughter was filed this week in Chicago. Harvey Plotnick, president of Regnery, said that Miss Churchill was to have written the book with Charles Hamblett, who died two weeks after the contract was signed in March, 1975. Hamblett's death voided the contract, Plotnick said, adding that a chapter Miss Churchill wrote herself and later submitted to the publishing house was "atrocious". Plotnick added that Miss Churchill refused to return the advance, saying that she had already spent it.

* * *

The tunic worn by Napoleon at Waterloo has ended up in the home of his battlefield enemy, the Duke of Wellington. The present and eighth duke bought the tunic for $36,300 at an auction in Monte Carlo. He plans to put the tunic on exhibition at Stratfield Saye, the house given by the British government to the earlier Wellington. Napoleon started out on the morning of June 18, 1815, wearing the tunic, but rain made him change his clothes. The tunic was found in his coach when he abandoned it and fled on horseback [...] defeat by Wellington [...] Prussian commander, [...] Vahlstatt Blücher. [...] belonged for many [...] Blücher's family.

The Duke of We[...]

* * *

Vice-President Nelson [...]ler intends to sell his [...] Washington. The as[...] for the 25-acre propert[...] $2 million. Rockefel[...] the estate in the mid-[...] he was serving as coo[...] inter-American affairs [...] Roosevelt administratio[...]feller and his wife pla[...] to a Japanese-style ho[...]ly completed on the fam[...] pound in Pocantico Hi[...]

* * *

A 56-year-old man [...] lived in the stairwells [...] ridors of Milwaukee's [...] building for two years [...] sent to jail for 90 d[...] won't be alone for [...] "That's the only way [...] to get a merry Christm[...]ty Judge Ralph Gers[...] Friday as he sentenc[...] Lawmen on a disorderl[...] charge. Deputies said [...] haired, sad-eyed man [...] them he has given u[...] He also told police th[...] a son and daughter but [...] want to burden them [...] troubles.

—SAMUEL JU[...]

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